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ABSTRACT

This demonstration aims at eliminating major obstacles blocking career advancement of human service paraprofessionals. It seeks to develop new options for upgrading workers in four occupations: addiction services, child development, occupational therapy, and teaching. The policies and practices of educational institutions, employers, unions, professional associations, credentialling bodies, et al., which hinder upgrading of lowlevel employees, are investigated and, where possible, altered. The major thrusts are to make credentials more relevant to job duties; give greater credit for work and life experience; foster mobility among human service occupations; and make it possible for paraprofessionals to obtain education and training while fully employed. (Included is an appendix of occupations considered but not selected.) (Author)

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DEMONSTRATION PROJECT ON DEVELOPING ALTERNATIVE QUALIFICATIONS AND CREDENTIALS FOR PARAPROFESSIONALS

FINAL REPORT: Phase II

December 1973

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The National Committee on Employment of Youth is an arm of the National Child Labor Committee, a private, voluntary agency dedicated to helping increase the effectiveness of those working directly with children and youth, by conducting research, planning, staff training, technical assistance, information services, and demonstration programs for agencies and institutions throughout the country.

PREFACE

This report was prepared by members of the training staff of the National Committee on Employment of Youth and reflects their experiences in developing and implementing upgrading programs for paraprofessionals in four human service occupations.

Increasing numbers of paraprofessionals who have gained employment have found their upward mobility severely limited by lack of academic and professional credentials. In 1970, NCEY initiated under a U.S. Department of Labor contract, a project to develop alternative qualifications for, and new routes to, credentials for paraprofessional human service workers. The four programs are designed to be less costly than the usual released-time arrangements with employers, and less burdensome, shorter, and more relevant to the participants--many of whom are poor and minority group members--than conventional college programs. They aim at relating credentials more effectively to job duties; giving credit for previous learning and on-the-job experience; and fostering mobility and transferability of employment among jobs requiring similar skills and knowledge.

Many people played key roles in bringing these programs to fruition. We should like to thank the staffs of employing agencies, colleges unions, professional associations, and the literally hundreds of of others, including our first group of students, for their continuing support and assistance. It would be impossible in this space to give each the recognition deserved; however, a few people must be mentioned individually:

--Anita Vogel who served as Project Director from July 1970 to November 1972, who was instrumental in setting forth many of the concepts and procedures we have followed, and who, as Director of the Human Services Department of LaGuardia Community College, has enabled two of our program models to see the light of day.

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--Richard McAllister, Project Officer of the U.S. Department of Labor who has always fostered our efforts and who has shown extraordinary patience in waiting for results of our project to materialize.

JEFFREY NEWMAN
Executive Secretary

DEMONSTRATION PROJECT ON DEVELOPING ALTERNATIVE QUALIFICATIONS AND CREDENTIALS FOR PARAPROFESSIONALS

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DEVELOPING NEW MODELS FOR PARAPROFESSIONALS IN HUMAN SERVICE OCCUPATIONS

CHAPTER I

DESIGN AND PROCESS

A. Introduction

The training and utilization of relatively unskilled, low-income workers in public services is not a new phenomenon. As early as the seventeenth century, the Elizabethan Poor Laws included a provision that those unable to find employment and were dependent upon the state be placed in workhouses and trained to perform "community improvement" work.

In the United States, an organized program based on this concept was first developed under the Depression programs of the 1930's. In the National Youth Administration, for example, unemployed in-school and out-of-school youth were trained and placed, as non-professionals, in the fields of health, education, recreation, welfare, corrections, and in the arts. When the N.Y.A. was discontinued in 1943, there was no real move to continue the programs; the idea, however, had been implanted.

Ten years later, in 1953, the Ford Foundation funded several programs and studies aimed at providing employment to untrained personnel in several school systems, assisting teachers by taking over their nonprofessional functions. These programs were not too successful due, mainly, to the resistances of the teachers themselves.

Many less ambitious projects followed, but no major breakthrough was made until the early 1960's, when the employment of auxiliary personnel in human services rose sharply because of the availability, as part of the Administration's overall "War on Poverty," of large amounts of Federal funds from the Office of Economic Opportunity, the Office of Education, and the Department of Labor.*

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*During this period the Department of Labor funded an experimental and development training program for paraprofessionals conducted by NCEY. See Final Report, "A Demonstration On-the-Job Training Program For Semi-Professional Personnel in Youth Employment Programs," December 1965.

Emanating from the Scheuer Amendment to the Economic Opportunity Act of 1966, and building on the prior legislation, the nationwide New Careers program was an exploration of the potential contribution to public services that can be made by capable adults from poverty backgrounds. This new round of programs differed from the Depression programs in several significant ways:

1. Based on an increased awareness of the extent of human needs and limited existing services, they were directed toward providing essential human services for all.

2. They stressed the involvement of low-income workers as participants, instead of as recipients, in the process of problem-solving.

3. They tried to take a more systematic approach toward training, role development, and the institutionalization of programs.

4. They sought to shift from the concept of creating entry-level jobs leading nowhere to the concept of career development, with training available at each step for those who sought and merited upward mobility.

Results to date give evidence that education, training, and on-the-job experience can produce a valuable new supply of paraprofessionals, many possessing the ability and ambition to advance into both more responsible jobs, and into other positions with professional status that require formal education and training.

Thousands of paraprofessionals, recruited from the nation's poor and minority groups, are employed as human-service workers in the institutions of health, mental health, welfare and education. These new jobs, however, have created a "second generation" problem of considerable magnitude: academic obstacles blocking their career advacement may trap these paraprofessionals in another job ghetto.

With scarcely any exceptions, employers of human-service workers set the baccalaureate degree as a minimum requirement for career advancement. Some agencies provide for recognizing individuals with "equivalent experience." Since they have not defined "equivalent," however, it is difficult to plan for career advancement.

In New York City, a paraprofessional obtaining a job through the Scheuer program was eligible for half-time financial support in associate degree programs if he was enrolled as a fully matriculated student. The most obvious flaw in this program was that major employers of paraprofessionals had no jobs for which the associate degree was a requirement; there are few career ladders that specify it. Further, the program gave access only to tuition-free courses, i.e., City University daytime programs, and then only if participants carried enough credits to be matriculated students. Most employers were not able to pay for education and released time for their workers for such a large part of the work week, and employees in marginal jobs could not finance their own education.

Evening courses were excluded from consideration because the colleges charged tuition for them, and evening matriculation courses which carried tuition-free status depended upon accumulating as many as 30 credits with a rather high scholastic index.

The student who enrolls in evening courses on his own has serious difficulties. Many of the career-related courses (e.g., nursing) are not offered at night and, if they are, it may take up to 10 years of study to attain the baccalaureate degree. If the student has family responsibilities, attending school at night could be an impossible burden, especially if matriculation is unlikely; there is little recognition or status for the person who stops short of the baccalaureate degree.

Most public colleges, although expressing interest in the adult student, have focused on the flood of recent high school graduates. No college has either the funds or the personnel to design or conduct programs for mature, employed people seeking upgrading. Curricula are geared to the young students who bring with them none of the life experience of the older employed worker. Adult programs are more concerned with avocational interests than with vocational pursuits.

In summary, the options open to the adult paraprofessional seeking advancement and professional status are not satisfactory. What has been urgently needed for paraprofessionals is an option which will build on and give credit for their life experiences, enabling them to qualify for advanced positions in less time, at a lower cost, and in a more meaningful way. To develop this alternative requires a design that would analyze employment opportunities and requirements, develop new types of educational programs, and devise alternative routes to credentials.

The National Committee on Employment of Youth carried out one of the first demonstration training programs for paraprofessionals from 1964-1966, with financial support from the Department of Labor's Experimental and Demonstration Program. Three years later, at the request of the Labor Department's Office of Research and Development, NCEY conducted a follow-up study of a sampling of the graduates which indicated highly satisfactory job performance, regular salary increases, and a stable employment pattern.

NCEY's survey confirmed that the paraprofessionals recruited from among the poor brought important assets to human service agencies. According to the reports of executives and supervisors, the maturity and accumulated life experience of paraprofessionals--combined with their first-hand knowledge of the client population--were important both in establishing relationships with the client population and then in gaining client acceptance for the agency's service. (To perform as well in this regard, the supervisors noted, young college graduates needed a great deal more experience as well as special training.) However, the study also documented the fact that career advancement opportunities for paraprofessionals were severely limited by requirements for academic and professional credentials.

In July 1970, the Office of Research and Development of the U.S. Department of Labor's Manpower Administration carried forward its development of new approaches to broadening entry opportunities to professional fields by awarding a contract to NCEY to develop and test ways in which paraprofessionals in selected human-service occupations could be upgraded by (a) creating new routes to obtaining credentials; (b) modifying education and experience requirements for obtaining these credentials; and (c) reducing the need for credentials.

The experimental and demonstration project aims at eliminating major obstacles blocking career advancement and threatening to trap many paraprofessionals in a new job ghetto. It seeks to develop a range of options for advancement which are cheaper, shorter, more relevant to both the nature of the jobs to be performed and to the background and career objectives of the paraprofessionals. To accomplish this, the policies and practices of employers, educational institutions, unions, licensing bodies, civil service systems and professional associations must be changed.

Specifically, NCEY is attempting to develop changes in the educational system and in the qualifications and credentialing processes to help employed paraprofessionals advance in human-service occupations to intermediate and then professional positions. Its thrusts are to make credentials more relevant to job duties; give greater credit for work and life experiences; foster mobility and transferability of skills and knowledge among human-service occupations; and make it possible for paraprofessionals to obtain vocational education while fully employed.

The experience obtained in the course of developing these programs hopefully will be useful for establishing similar programs in other occupations and in other communities. Each of the operational models contains a component directed toward achieving replication.*

B. Criteria and Process for Selecting Occupations and Collaborators

In our attempts to develop models in several occupations, we started with three major premises:

1. Paraprofessionals perform well in human-service occupations and have the potential to function as professionals. They bring a quality to their work which many professionals do not have--a knowledge and understanding of their community and/or particular group.
2. Regardless of their ability and ambition, paraprofessionals have been locked into low-level jobs by academic and professional credentials requirements as well as by dysfunctional institutional personnel practices.
3. It is possible to remove or circumvent the structural blocks and to upgrade paraprofessionals to provide professional status in an effective and efficient manner by providing credit for work and life experience; by training designs based on task analysis and work competency; and by providing formal education at the job site.

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*The new Comprehensive Employment and Training Act calls for certain work to which this R & D project is germane. See Section 314 on removal of barriers to employment and Title II on public employment.

From these premises we developed basic criteria for building our models:

1. Educational institutions had to be willing to design and use: (a) alternative routes to credentials more relevant for adults in human service occupations, that were shorter, and more economical than conventional programs; (b) a work-study approach; (c) close ties with the employers; (d) special curricula when necessary; (e) academic credit for what the worker has learned, either in academic settings or elsewhere, and for work experience; and (f) educational facilities on a year-round basis for maximum use of time and resources.

2. Employers had to be willing to base their selection on the skills and knowledge needed for competent performance; provide some released time for education for the paraprofessionals; arrange for special staff assignments for training purposes; and assign qualified supervisors for paraprofessionals.

3. Academic institutions and employers both had to be flexible and willing to consider each other's and the workers' problems; to use sites as learning places where supervisors give in-service training accredited by the academic institutions; and to accept and participate in a coordinating body which would develop policy, evaluate program elements, and resolve problems.

4. Paraprofessionals had to be willing to make a significant contribution of their own in time and energy.

5. The occupations selected should permit credentialling at both the associate and baccalaureate levels.

6. The occupations had to have significant numbers of workers at dead-end, low-level jobs, and a reasonable number of unfilled higher-level jobs which required a credential.

7. Labor unions and professional organizations had to be willing to work with us in the development and conduct of the programs.

8. Collaborators had to agree to use task analysis as the basic methodology for linking work experience and the educational curriculum.

9. Each program had to meet a sufficiently strong need of the labor market to attract the interest of funding sources, and the cost of establishing models had to be within available resources.

NCEY staff felt that several occupations should be chosen in related fields to permit greater impact with limited resources. We also felt that there should be a wide range of occupations for comparitive purposes. Thus, some occupations would involve a single employer and/or academic institution, while others would involve a consortium of employers and/or academic institutions; some occupations would be in the public sector (Civil Service) while others would be in the private sector. In one occupation there might be a dominant union, in another a strong professional association, in a third, neither; etc.

To help us select occupations, NCEY organized an Advisory Committee composed of experts on manpower utilization, research, and training, all experienced with programs for paraprofessionals in human-service occupations. With the assistance of the committee, NCEY began exploring occupational fields. This process included:

--Examination of occupational data available from various bureaus and government agencies, professional associations, state licensing agencies, state and local codes and regulations, existing and pending legislation, to determine numbers of persons employed and needed in various occupations, and what the long-term trends seemed to be in these occupations.

--Reviewing the literature, including government periodicals and publications, professional bulletins and magazines, data retrieval systems and related books and articles, to draw upon experiences of other projects and models.

--Personal interviews and consultations with representatives of major human-service employers, unions, state and local Civil Service organizations, professional and occupational associations, licensing bureaus, and academic institutions, to identify promising areas as well as potential roadblocks within various occupations.

--Consultation with our Advisory Committee, first as a group and then with individual members, as needed, to provide gudiance and direction in our efforts.

--Discussions with individuals and small groups of paraprofessionals in different occupations to ascertain what they saw as their needs for career advancement.

Through this process, we were able to identify more than 25 occupations warranting further investigation.

Narrowing our choice from the more than 25 occupations identified required intensive investigation, research and consultation. The decision to select or not select an occupation was based primarily on our ability to identify key agencies and individuals willing to cooperate with us. Protracted negotiations seemed to be inevitable before agreements could be reached; this process involved first defining our goals in terms which coincided with the goals of the potential collaborators and also had practical application for them. Plans were then worked out which specified the responsibilities of the collaborators. In most instances, the proposed collaboration plan had to be studied either by a committee of staff and/or by directors of affected departments or units.

Reaching agreement with collaborators was further complicated by sudden, drastic changes in funding of public agencies. Budget cuts and job freezes curtailed plans for expansion of services and staff in many agencies. In some instances, this resulted in shortage occupations suddenly being converted to surplus status. Administrators became extremely cautious about entering into agreements for new programs. The general economic recession forced private agencies and institutions to be equally cautious about new commitments that would add to their fiscal burdens.

Sometimes during the negotiations with employers, the occupation under discussion would be dropped and another occupation substituted. For example, in our initial discussions with representatives from a State institution we were considering a new occupation of Mental Health Worker which would encompass a number of presently distinct disciplines as applied to a specific population. For several reasons it was not possible to work out a viable program, but it became apparent that there was a great interest and support for a different program, in occupational therapy; working with the same employer, we changed the occupational goal.

In some fields, NCEY had less difficulty than expected in gaining the cooperation of unions, professional associations and Civil Service departments. In a few cases these groups encouraged our development work: helping locate collaborators, providing consultation services, participating in job analysis and curriculum development, and even offering to contribute some funding.

More problems than anticipated were encountered in identifying and working out agreements with academic institutions. In selecting appropriate academic collaborators, we sought to identify those colleges which would agree to the criteria we had established.

Occupations were eliminated from further consideration for a variety of reasons.* The overriding factor for not setting up a program in an occupation was the matter of timing. It was felt that a program could be set up at some future date in most if not all of the occupations considered. For example, we considered a physician's assistant program, but it presented too many barriers. Since that consideration, however, New York State passed a licensing law for physician's assistants, eliminating many barriers. It would now be possible for us to undertake a program for this occupation.

Of the 25 or more human service occupations surveyed by NCEY staff, five survived preliminary field investigations: Addiction Worker, Child Development Worker, Occupational Therapist, Classroom Teacher, and Public Health Nurse. The field investigations included discussions with employers, paraprofessionals, unions, professional associations, educational institutions and special consultants in selecting those occupations where we were most likely to be able to develop a successful model.

After we had selected the Public Health Nursing model, we encountered a number of problems which could not be solved, compelling us to abandon it. At this time, therefore, we are dealing with four of the five occupations. A brief description of each model follows:

Addiction Worker

This model has been developed by NCEY in collaboration with seven voluntary drug abuse agencies: Daytop Village, Reality House, Salvation Army, Addicts Rehabilitation Center, Lower Eastside Service Center, Greewich House Counseling Center and Encounter.

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*See appendix for specific reasons for rejecting each occupation.

LaGuardia Community College and the City University of New York baccalaureate program will educate, train and upgrade the skills of 30 paraprofessionals, most of them ex-addicts. The education-training program began in September 1973, and it is expected that most of the participants will have earned an associate degree in mental health within 18 months. When this degree has been obtained, the paraprofessionals will enter an individualized 18-month program leading to a baccalaureate degree. The program has been funded for $310,050 for a three-year period by the National Institute of Mental Health.

Child Development Worker

In cooperation with the New York City Agency for Child Development, nine child care centers in Manhattan and Queens, LaGuardia Community College and Hunter College of the City University of New York, NCEY developed a program for the education and training of child development workers in day care centers and other pre-school programs. The model is based on the new credential of Child Development Associate proposed by the Federal Office of Child Development. Participants may continue their education and obtain a baccalaureate degree at Hunter College. This program will be articulated with the associate degree program at LaGuardia. The program has been funded for $48,130 in its first year by the New York State Department of Education. Thirty-two paraprofessionals began their education and training in September 1973.

Occupational Therapist

The occupational therapist model includes a consortium of four New York State health and mental health facilities (Rockland State Hospital, Rockland Children's Psychiatric Hospital, Letchworth Village and the New York State Rehabilitation & Research Hospital); two academic institutions (Rockland Community College and the Hunter College Institute of Health Sciences); the New York State Departments of Health and Mental Hygiene, and the American Occupational Therapy Association, collaborating with NCEY. The program will open career-advancement opportunities in the field of occupational therapy for economically and educationally disadvantaged workers in the four clinical institutions. Sixteen workers each year for five consecutive years will be educated and trained for positions as Certified Occupational Therapy Assistants and Registered Occupational Therapists, earning associate and baccalaureate degrees. This program has been funded by the

National Institute of Health for $204,533 for the first year of the five-year program. The first group of 16 students began their education and training in September 1973.

Classroom Teacher

The teaching model was developed by NCEY in cooperation with Community School District #9 (Bronx), the Bernard M. Baruch College's School of Education, and the United Federation of Teachers. Its objective is to prepare the district's classroom paraprofessionals to become certified early-childhood teachers.

This five-year project will enroll 30 teacher aides annually. They will be prepared for teaching roles in a baccalaureate degree program based on teacher behavioral competencies derived from pupil learning objectives. The model's high operational and research costs have created problems in obtaining immediate funding, but we are confident that support will be ultimately forthcoming.

Public Health Nurse

This was to have been the fifth occupational area for development. The original plan involved the training, education and upgrading of Public Health Assistants within the New York City Department of Health to positions as Junior Public Health Nurses and eventually to Public Health Nurses. There was a strong interest on the part of the Department of Health and an academic collaborator. The first problem encountered centered on the city's hiring freeze. The second involved the loss of the academic collaborator due to internal administrative and staffing difficulties. Other academic collaborators could not be located for these reasons: their regular nursing courses were fully subscribed; their nursing graduates were having difficulty in locating jobs; and there were problems about changing the thrust of nursing education from bedside care to public health. Many of the associate degree programs were also having accreditation problems with the National League for Nursing.

NCEY's Role

Initially, NCEY's main thrust was researching occupational areas including the types of personnel employed and needed, and narrowing possibilities on the basis of the established criteria. During this exploratory period, NCEY surveyed various human-service occupations to find which had expanding job opportunities and where changes in promotional and credentialling practices would be most feasible and desirable.

The next steps included:

--Arousing interest among potential collaborators and persuading them to participate;

--Overcoming resistance to participation in the project;

--Bringing collaborators together;

--Determining how to fund the program and, if necessary, obtaining a funding source;

--Conducting task analysis to determine the nature of curricula, relationships between formal education and work-site learning, the role of the supervisor, criteria for competency-based certification, etc;

--Developing the basis for institutionalizing the program;

--Coordinating the activities of the collaborators; and

--Problem solving.

NCEY was involved with a wide range of forces: clinical and academic institutions, municipal and state agencies, unions, professional associations and others, each with a different concept of the project.

As a third party, NCEY has been able to exercise a unique kind of leverage. Having no vested interest in the orthodoxy of rules, tradititions and programs, we were free to make recommendations which could come from no other collaborator. This led to some criticism that we did not understand the problems inherent in making such drastic changes.

In some cases these criticisms may have been accurate. However, without our push and willingness to take chances, many operational approaches would not have been developed.

In each case, NCEY's major task was to coalesce and harmonize the goals and operations of several collaborators at the precise point where their interests coincided. This point varied considerably from model to model.

Much of our success in bringing programs up to the operational and funding stages is directly attributable to the Department of Labor's willingness to permit us to award "development grants" to participating employers and colleges. These $5,000 grants were the seed monies crucial for developing collaborative efforts between employers and colleges. The grants were used to pay for planning, task analysis, and curriculum design, activities for which funds were not available from regular budgets.

Evaluation

Evaluation of each program will include most of these elements:

1. Career development of individual trainees

   Job assignment; salary; promotion; percentage completing two-year and four-year components; career mobility; job performance; time and cost of program; kinds of people participating; application of learning on job; etc.

2. Employing organizations

   Staffing; duties assigned to paraprofessionals generally and to paraprofessionals in an educational program; recruitment for paraprofessional jobs; cost of program; nature and quality of supervision, training, and services to clients; use of task analysis; expectations of improved performance; use of performance evaluation; etc.

3. Educational institutions

   Competency credit; work-study credit; use of adjunct faculty; requirements for entry; relationships with employed students; admission and special programs for working adults; use of task analysis; curriculum; teaching methods; etc.

4. Career development model

   Cost effectiveness; replication; standards of professional associations; acceptance by unions, professional associations, Civil Service, etc.

   We will identify and compare curriculum components and methods applicable to all models and identify elements which may be applied generally in all training programs.

Conclusion

We have developed different models for meeting the program's objectives. In addiction, occupational therapy, and child development there are two educational institutions offering asociate and baccalaureate degrees, with a consortium of employers in each. Teaching, on the other hand, will offer only a baccalaureate degree and will have one employer and one academic institution. Occupational therapy and teaching are geared to government employment, while addiction services and child development may be non-governmental employers. Addiction, child development and teaching are all based in New York City; occupational therapy is outside of New York City. Occupational therapy has included the active participation of a professional association; teaching involves the participation of a union; addiction and child development involve neither. In occupational therapy and teaching there are existing professional lines; in child development a professional line is evolving. In addiction there is no well-defined professional line. Funding for occupational therapy and addiction has come from the federal government; funding for teaching is being sought from federal, state and private sources; and funding for child development has come from the state.

While each of the occupations selected has unique aspects, there are common elements: All are for low-level, human-service employees largely from minority groups, who cannot qualify for higher level positions under conventional systems despite their capability and whose knowledge of their communities has particular value for new systems of service delivery. Each occupation moves the workers from where they are in terms of experience and knowledge, and relates to the skills and knowledge needed for competent performance at increasing levels of responsibility. In fields where education has been solely the prerogative of academic institutions, the demonstration models shift this responsibility so that the employer becomes a partner. This shift and new collaboration make preparation for advancement more meaningful, and economically more feasible for employees. In addition, each model meets the criteria established in our conceptual design.

A common and essential element in each model is the provision made for operational control to be vested in the hands of a board comprised of representatives of all participating agencies, institutions and individuals, including the trainees. These boards (Policy Board, Program Operations Committee or Parity Board, depending on the model) are given responsibility for seeing to the successful implementation of the models.

They are decision-making, problem-solving groups. NCEY has one vote on each board. Control of the programs will be in the hands of those closest to the day-to-day operations. This has a number of important implications. It permits NCEY staff to devote its energies and time to monitoring and evaluating each model, conducting inter-model comparisons and evaluation, and work for the replication and institutionalization of the models. By involving participants in the decision-making process, we hope to build in vested interests on the part of the collaborators to insure that the models will continue operation when outside funding and support have been discontinued and when NCEY's contributions are no longer available.

As the occupational models are implemented, we will be building a level of expertise which heretofore did not exist in participating institutions. The nature of the models and the process for developing them should establish precedents for continuing academic-institutional collaboration in other occupations and in other settings.

The remaining chapters of this report will discuss each model in detail, its historical development and the significant and distinctive features of each. The final chapter summarizes our findings to date, offering some tentative observations, conclusions, and recommendations.

CHAPTER II

ADDICTION WORKER MODEL

A. Introduction

Drug abuse and its partner--crime--constitute one of the thorniest problems facing the nation. It is estimated that there are between 250,000 and 300,000 heroin addicts throughout the country. New York City, with four percent of the nation's population, is said to have 50 percent of these heroin addicts. A recent report by the New York State Fleischmann Commission estimated the number of hard and soft drug users in New York's high schools at 45 percent of the student population. A survey by the New York City Police Department revealed 20 percent of all arrests for robbery and burglary were committed by drug addicts, and the Police Commissioner estimated that 50 percent of urban crime is directly attributable to drug addicts.

The nation and its major urban communities have responded to the threat of the drug abuse problem with a wide range of programs involving a variety of treatment modalities. While these programs obviously have been of some help, it is clear that the nation is far from reaching a satisfactory solution to the total problem. Among the reasons for the lack of progress are: (1) limited resources spread too thin; (2) inadequate knowledge of what is useful in prevention, treatment, and rehabilitation; (3) disagreement over which are the most effective approaches; and (4) major gaps in staff training and development--both theory and practice. Our program concentrates on this last point.

Early in our search for occupations characterized by shortages of skilled workers, and where the employment of paraprofessionals was much in evidence, the field of addiction came readily to mind. The constant media coverage given the drug abuse problem in New York City frequently connected the difficulties in coping with the problem to the lack of skilled practitioners. In addition, NCEY staff had some personal knowledge about staffing patterns in drug rehabilitation agencies and the need for more highly trained personnel who understood the field and were capable of assuming higher levels of responsibility.

The need for well-trained staff has been amply documented. In New York City in 1972:

> More than 2,000 new personnel are working in school-based programs and perhaps an equal number in treatment programs. Also the realization is steadily growing among other organizations (e.g., hospitals, social work agencies, correction institutions, and industry) that they have a major role to play in fighting drug abuse. Despite these facts, a major shortage exists of manpower possessing the clinical, experimental, or academic background to do the job. Few medical schools, colleges, or universities, or other manpower institutions have addressed themselves to this problem.*

Many addiction service programs have employed ex-addicts and community personnel on the premise that direct-service staff should be drawn from, and related to, the communities they serve. Thus, ex-addicts are assigned to work with addicts, and staff from ethnic and socio-economic backgrounds matching that of the local population work on community problems related to drug abuse.

The effectiveness of drug abuse programs depends upon the competency of workers in the field. There are relatively few professionals in drug abuse programs; most workers are paraprofessionals who are themselves ex-addicts. This predominance of paraprofessionals is likely to persist. Thus, the effectiveness of drug abuse programs depends on improving the service-delivery capabilities of paraprofessionals.

The paraprofessional addiction service workers have developed considerable skill, insights, and experience in dealing with addiction. Despite these skills, they are locked into jobs with little career opportunity. Higher positions within many of the addiction services agencies and in agencies offering related services (e.g., employment, rehabilitation, probation, and parole) use these skills but require academic or occupational credentials. The credential is particularly important for the ex-addict. Regardless of his skills, experience or motivation, he is presently confined to working with other addicts in the only human-service job for which he can be hired.

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*Graham S. Finney and Raymond H. Godfrey, Jr., "Heroin Addiction and Drug Abuse in New York," City Almanac, Vol.6, No.6 (April 1972), p.12.

What is urgently needed are programs which will enable these workers to move vertically into administrative jobs in the drug abuse field, and horizontally into allied field.

B. Development of the Model

In September, 1970, NCEY surveyed the educational and training needs of paraprofessional addiction workers employed in New York City's Addiction Services Agency. While education and training was considered a worthwhile objective by these workers, they did not see education as a necessity. They felt they were able to advance in the Civil Service ladder without academic degrees or professional certification.

The Commissioner of ASA, however, stated this was not the case. The addiction specialist series was newly established and all the workers would be required to compete in an examination for these positions. Convinced of the value of the paraprofessional addiction workers, ASA did not want to risk losing them through the establishment of a system requiring conventional academic credentials and passage of a written test. Thus, at the time of NCEY's initial contact, ASA felt the need for an innovative educational and upgrading plan and consequently agreed to participate. The Horizon Project, one of the largest and best funded under ASA's aegis, was designated the laboratory component for our project.

Horizon Project, funded by NIMH, operated a large residence for drug-free therapeutic treatment, an out-patient facility, a number of intake and community education storefronts, and was preparing to open a second residence.

A well-known eastern college, a pioneer in fostering innovative programs, agreed to explore the establishment of the academic component patterned on its external degree program for mature students. NCEY provided a $5,000 developmental grant for this purpose. The goal was a program which would include: independent study under a faculty mentor; the contract format; student and mentor evaluation of programs and progress; credit for previous college work and significant life or work experiences; college-accredited in-service training; and acquisition of a baccalaureate degree within four years or less.

The program included: one week at the start of each semester in residence at the college to work out study contracts, attend seminars, and utilize the research and library resources of the institution; four intensive, New York-based annual workshops; and regular visits by faculty to provide academic and administrative supervision to the students and the counselor-tutors.

In collaboration with ASA, NCEY conducted an intensive job analysis in Horizon Project. We hired an expert consultant who first trained Horizon staff to conduct interviews and administer questionnaires to elicit pertinent data. Supervisors reviewed the data for accuracy and to provide additional information. The following 13 major functions and 47 explicit tasks reflect most of the work being done in the agency.

1. Administration

   Tasks: clerical work; administrative services.

2. Supervision

3. Self Training

   Tasks: training new staff; training trainers; supervising education programs for the community; training of residents.

4. Reports

   Tasks: daily records; compiling reports.

5. Recruiting

   Tasks: making contact; engagement; involvement of addict; assessment of needs and referral.

6. Orienting the addict to rehabilitation

   Tasks: involving the prospective program participant; giving him facts he needs to make decisions; orienting him to groups; evaluating the prospective participant's potential for rehabilitation and referral.

7. Working with addicts

   Tasks: activities directed to making the addict drug-free and emotionally sound; activities for giving him skills and responsibility; evaluating his growth and development.

8. Community relations

Tasks: identification of agencies; establishing contact with agencies identified; opening, developing, and maintaining working relationships with agencies; reporting back on relations developed.

9. Community education

Tasks: establishing appointment; making a presentation; follow-up with the participants; serving as information officer.

10. Counseling

Tasks: making contact with parents of addicts, pre-addicts, or youth in programs; making contact with the schools; individual counseling with young addicts; follow-up on other activities.

11. Forming community groups

Tasks: making contact for the purpose of organizing groups; organizing a group; follow-up.

12. Running a community group

Tasks: group raps; seminars; running an encounter group; engaging the group in activities.

13. Interviewing

Tasks: making contact; interviewing; evaluating; making determination; referring; escorting to other programs.

Based on this analysis, an NCEY specialist with the help of ASA and Horizon staff identified the following skills and knowledge:

General skills and knowledge

--Orientation for all staff concerning addiction theory and programs, as well as general information about the community, the Horizon Project, and the Addiction Services Agency.

--Basic skills in reading, math, and communcations techniques for trainees deficient in these areas.

--Administrative and technical skills, particularly problem-solving, planning, and supervision.

Substantive skill areas

--One-to-one group dynamics.

--Group dynamics.

--Community relations, community service, and community organization.

The task analysis provided a basis for examining the similarities between the drug abuse field and related occupations, and provided the framework for establishing a horizontal mobility plan.

A proposal was submitted to NIMH in October 1971, for the education, training, and upgrading of 24 paraprofessionals employed by Horizon Project.

NCEY held a two-day conference with representatives of the college, ASA, and Horizon to discuss the in-service training and the academic program. There was general acceptance of the skill and knowledge areas identified, but some disagreement with the proposed educational plan. College representatives wanted the in-service training closely tied to the degree program's format and content. ASA wanted in-service training focused on operating needs. Both the college and ASA wanted all workers included in in-service training. This raised the question of how credits could be accrued by workers not selected for the degree program.

Further problems arose related to the amount of credit to be given for life experience, and the selection of 24 paraprofessional participants from a staff of 80 eligible workers.

A new proposal dealing with these problems was submitted to NIMH early in 1972. A Horizon Learning Center would be established, manned by college faculty responsible for in-service training of the entire staff and supervising the study contracts.

In April 1972, NIMH rejected this new proposal. Its major objections centered on the proposed baccalaureate program; failure to link formal education to in-service training needs; and the playing down of vocational advancement opportunities. At meetings with NIMH staff, we learned that it would look favorably upon programs offering ex-addict paraprofessionals the option of moving out of the drug abuse field entirely.

At this time, internal problems at Horizon Project forced it to withdraw from the program. We began negotiations with SERA, a large independent Bronx-based drug abuse agency. No program could be established as SERA insisted on its own in-service training program, not coordinated with the liberal arts program, while the college would not modify its existing program to meet the goals of the agency. The in-service goals of the first, and the educational philosophy of the second, could not be changed sufficiently to meet the basic conditions of a strong linkage between work and education. We were forced to seek new collaborators.

Convinced of the viability of our model which took two years to develop and refine, and under pressure to submit a proposal to NIMH in one month (September 1972), we obtained from the Fiorello H. LaGuardia Community College of the City University of New York and an association of voluntary drug abuse agencies commitments to participate. A two-week extension of the NIMH deadline permitted us to submit a proposal by October 15, 1972. In May of 1973, NIMH funded our program for three years for $310,050.

The budget provides for a Program Director and secretary, reimbursement to the agencies employing trainees for release-time, funds to supplement the tutoring by LaGuardia, tuition costs for those students requiring it, and money for supplies, equipment, and travel.

C. Present Status of the Model

1. Overview

The National Committee on Employment of Youth is collaborating with a consortium of seven New York City voluntary agencies, LaGuardia Community College, and a City University of New York senior college program, in a demonstration program. The objectives, based on an analysis of the skills and knowledge needed to perform addiction service tasks at both elementary and higher skill levels, are to increase the professional and managerial competencies specific to the drug abuse field and to develop functional competencies which will permit paraprofessionals to use their skills, understanding and techniques in a broad range of human service and mental health occupations.

Thirty paraprofessional employees of the seven voluntary agencies have been enrolled in the three-year program, and began their formal education and training on September 24, 1973. The trainees are predominantly young adults, former addicts, and minority-group members. Their work histories include valuable experience as addiction service workers. However, they lack broader functional knowledge and skills, formal education and credentials needed for promotion and job mobility. After completing 66 college credits, they will earn an associate degree in Human Services with a concentration in mental health. They may then pursue individualized baccalaureate programs at a senior college of City University or in the CUNY all-university BA program.

2. Trainees

Based upon a survey questionnaire administered to a small sample of paraprofessionals in private addiction agencies, NCEY found that most workers are black, male, and range in age from 21 to 47. Average salaries range from $7,000 to $9,000 per year, with a low of $5,200 and a high of $15,000. Fewer than 25 percent either are, or have been, married. About the same percentage are responsible for the support of others, including parents, siblings or another relative.

Most paraprofessional addiction workers in the field are ex-addicts themselves who have demonstrated, during the period of their own rehabilitation, qualities of maturity, emotional stability, motivation and dedication. They have developed practical skills in providing individual counseling, running group sessions and handling community education and public relations jobs.

Most of these workers are in jobs in the agencies where they received treatment. Little lateral mobility exists between agencies.

3. The Colleges

a. LaGuardia Community College, one of 20 branches of the City University of New York, opened in September, 1971, as the only unit of CUNY to offer work-study programs to all of its students. The College has both career and transfer programs and offers the associate in arts (A.A.), associate in science (A.S.) and associate in applied science (A.A.S.) degrees.

The college is dedicated to the concept that learning occurs both in the classroom and on the job. Its educational program provides the traditional academic foundations for learning, while helping the students to meet the requirements of urban living and employment. Student guidance and support services, faculty instruction and work assignments, are coordinated into a coherent education program.

LaGuardia operates on a year-round, four-quarter system, with each quarter of 13-weeks duration.

Students with demonstrated competence in specific areas may be granted up to 10 credits of advanced standing. Those who demonstrate competence in a specific skill may be exempted from a course whose purpose is mastery of that skill. Students may be granted up to 30 credits for courses taken and passed at other accredited colleges.

In conjunction with the employing drug abuse agencies, utilizing the NCEY task analysis, the college has developed a curriculum which emphasizes the skills and knowledge required to work effectively within drug rehabilitation settings and in mental health agencies. The academic courses are articulated with accredited in-service training and work experience, sequenced at increasing levels of proficiency.

The employing agencies, accepting the goal of helping the workers move out of the drug abuse field, requested that the students, aside from enrollment in special mental health courses, be integrated into the general student body.

A number of academic courses will be taught as part of in-service training. Academic instruction is related to the kinds of experience and problems encountered on the job, and goes beyond these to application in areas other than drug abuse. There are regular communications between the academic faculty and the field supervisors.

The courses of study are:

nglish Requirements

asic Composition	3 credits	
ne additional course from the Division of Language Culture	3 "	....6 credits

ath-Science Requrement

wo courses in math-science from the Division of Natural Environment		....6 "

ocial Science Requirements

ntroduction to Social Science	3 credits	
eneral Psychology	3 "	
evelopment Psychology I: Childhood	3 "	
roup Dynamics: Small Group Processes	3	...12 "

ooperative Education Requirements

ix Part-Time Internships, 1-1/2 credits each (work experience)		....9 "

uman Service Core Courses
(combined classroom and in-service training)

rientation to Human Services	3 credits	
rinciples in Human Relations	3 "	
ommunity Dynamics	3 "	....9 "

ental Health Concentration Courses
(combined classroom and in-service training)

sychological Treatment Methods	3 credits	
ommunity Resources & Mental Health Roles	2 "	
ental Health Elective Labs (2 labs required, 2 credits each	4 "	....9 "

lectives

iberal Arts Electives (Divisions of Social Science, Natural Environment & Language & Culture)	12 credits	
nrestricted Electives (from any division) (may combine classroom and in-service training)	3 credits	...15 "
	TOTAL	66 credits

Some students may complete the degree requirements within six quarters, or 18 months. This is possible because our paraprofessional students are already employed full time in situations fulfilling the internship requirement. The equivalent of one full day a week of released time will be spent at the college; the equivalent of another full day a week will be devoted to concentrated in-service training and supervision which are also college accredited.

Students were selected by LaGuardia from the paraprofessional staff of the collaborating agencies on recommendation of the administrators and supervisors.

Criteria for admission to the program were:

1. A high school diploma or equivalency diploma (GED), or reading and writing skills to indicate the ability to do college level work.
2. Work habits as demonstrated by prior work history which indicate the self-discipline and energy needed to meet the time and work demands of the agency.
3. Work relationships (e.g., ability to maintain good relationships with co-workers and supervisors).
4. Evidence of abilities and motivation needed to succeed in the program.

Although it is expected that most students attaining the associate degree will choose to continue through to the baccalaureate, some may not. Those who elect to stop at the associate level will have a recognized college degree indicating proficiency in a cluster of human service and mental health occupations, and will have improved their opportunities both for promotion within their agencies and for lateral movement.

b. Articulation with a baccalaureate degree program

LaGuardia Community College and NCEY have been able to secure the participation of the new CUNY Baccalaureate Program, an all-university degree program, established by the Board of Higher Education in 1971. It permits mature and highly motivated students with a clear idea of their educational and career objectives to design their own academic programs under the guidance of a faculty committee. All matriculated students in good standing who have completed at least 15 credits at a senior or community college are eligible to apply. Admission is based on academic background, ability to work in an unstructured situation, the educational validity of the proposed program of study, and faculty recommendations. CUNY BA students may take courses in any branch of City University. They can be granted a maximum of 30 credits for non-classroom activities, or work experience. These activities must be performed under the guidance of the student's faculty committee and be directly related to the planned program of study. The committee will begin working with prospective students while they are still enrolled at LaGuardia to ensure adequate time for making career decisions.

The Hunter College Institute of Health Sciences will serve as the home base for the CUNY BA Program. The Institute offers a mental health curriculum and members of its instructional staff will serve on the faculty committees for our students.

It is anticipated that as many as two-thirds of the students attaining the associate degree will choose the CUNY BA Program. For those who do not, the LaGuardia degree will provide tuition-free access to any senior college within CUNY. The choice will be left to the individual student.

4. The employer agencies

The seven participating employers are members of the Association of Voluntary Agencies on Narcotics Treatment, Inc. (AVANT). AVANT includes 13 narcotics treatment programs caring for almost 4,000 drug abusers in residential and out-patient facilities. The member agencies are among the oldest in this field. They were organized as the direct result of community action.

The cooperating agencies--Daytop Village; Addicts Rehabilitation Center; Reality House; Greenwich House; Encounter; Lower Eastside Service Center; Salvation Army, Stuyvesant Square Center--are not wedded to a single approach in their treatment. Some are drug-free therapeutic communities which rehabilitate the addict through psychotherapy and vocational training; some employ methadone-to-abstinence with supportive therapy to stabilize the addict and prepare him for society. All are recognized by the New York State Narcotics Addiction Control Commission and the New York City Addiction Services Agency, and receive the bulk of their operating funds from these and other city, state, and Federal agencies.

The varying philosophies and treatment modalities of the seven employing agencies presented fewer problems than anticipated--and yielded a number of benefits. The mix of agencies and their differing treatment approaches make for a broader evaluation base.

The employing agencies will provide formal in-service training consisting of the laboratory portion of a mental health human services seminar given at LaGuardia College. They will also provide work experiences related to course material. Both components will be taught or supervised by preceptors, chosen from their own staffs and approved by LaGuardia.

Preceptors are selected by the agencies with the approval of the college. The college assists them in preparation for and conduct of their instructional roles. Training of the preceptors includes: formal workshops and seminars, individual and small group research projects, demonstrations, and field trips. Special emphasis is placed on relating competent job performance to the academic program. Specialists from the staffs of the participating agencies conduct some of the sessions.

Each employing agency has agreed to:

--Provide the necessary released time.

--Conduct the in-service training.

--Assign workers to jobs related to academic study.

--Maintain the students on full salary.

--Provide promotional opportunities.

--Cooperate with other participating organizations.

--Contribute to the development and formulation of program policies and operations through attendance at regularly scheduled meetings of a Program Operations Committee.

--Participate in the evaluation of the program.

The overall evaluation of an enrollee's progress will include academic success and demonstrated ability to perform at higher levels on the job.

The agencies have agreed to consider the Addiction Specialist series which we developed from our task analysis and which parallels the Civil Service lines of the New York City Addiction Services Agency:

(a) Addiction Worker, an entry level position performing basic tasks under close supervision, including liaison, observation, home visiting, and record-keeping.

(b) **Senior Addiction Worker**, performs intermediate level tasks under general supervision, including intake, training and group leading.

(c) **Supervising Addiction Worker**, performs professional level tasks under general direction, including supervision, planning, coordinating and directing.

(d) **Principal Addiction Worker**, performs administrative and management tasks, including overall operation of a program or agency.

5. NCEY

NCEY will provide program and fiscal management and control, technical assistance, monitoring, and evaluation of the operating program; will feed back findings to the program staff and the collaborators to help refine and adjust the program; and prepare a final report describing the program in detail, evaluating the different components and containing recommendations and guides for modification and replication.

6. Program Operations Committee

The entire program is under the aegis of a Program Operations Committee composed of representatives of each employing agency, the academic institutions, the students, AVANT, and NCEY. The director of the program was selected by this committee and is responsible to it for the entire program. Early meetings of ad hoc committees proved so successful that the Program Operations Committee has been made the chief policy and decision-making group for the program. Decisions are made on a simple consensus basis. However, colleges, employer agencies, and NCEY retain ultimate decision-making authority in their areas of primary concern or responsibility.

7. Staff

The program director provides overall program management, coordinates the activities of the employing agencies and colleges, and directs efforts toward achieving the program's objectives. He coordinates the academic instruction with in-service and work experience, assists the preceptors, and counsels the enrollees.

D. Conclusion

Paraprofessionals whose experience and training are almost entirely limited to the field of drug abuse are in a disadvantageous position when funding for their programs is reduced. Most of them do not possess recognized skills and knowledge needed to make the transition to another field; employers outside the drug abuse field do not value their training and experience. The ex-addict has little chance to "make it" on his own in the competitive marketplace.

This education-experience-training program, if successful, would give participants the ability to move out to the broader more generic field of mental health.

A successful demonstration would influence New York City's Addiction Services Agency, which has indicated interest in it, to attempt broadscale replication.

LaGuardia Community College will institutionalize the courses developed for this program in its mental health curriculum for other students.

AVANT will seek to expand the program to all of its 13 member agencies.

The data to be gathered by NCEY during the course of the program will be disseminated for the information of organizations interested in replication and institutionalization.

CHAPTER III

CHILD DEVELOPMENT MODEL

A. Introduction

There is a nationwide need for quality early childhood development programs. The Senate Labor and Public Works Committee reported that more than 5 million pre-school children need full or part-time day-care services while their mothers are away from home; yet there were fewer than 700,000 spaces in licensed day-care programs to serve them.

The 1970 White House Conference on Children estimated that $10 billion annually would be required for child care by 1980. The increasing number of working mothers and the growing attention accorded their needs both by public and private agencies and organizations leaves no doubt that increasingly large sums willbe spent on such programs in the next few years.

The War on Poverty, particularly the Head Start programs, indicated that in addition to the babysitting function of all day care programs, there was an educational function which was beneficial to the child's social and mental development. Thus, the change in emphasis from child care to child development.

A wide variety of programs under many different auspices have been established, from community-based ghetto operations to chains of franchised private day care facilities. All of these programs have a need for competent, well-trained people to staff their programs. New York City's Human Resources Administration estimated there is a potential national need for 456,400 professionals and 529,000 paraprofessionals in the child development field. At present only 5,000 college graduates and 10,000 paraprofessionals enter the field annually.

In 1970, the Federal government established the Office of Child Development (OCD) for a concerted national effort to expand and upgrade the quality of child-development services. Funding for child development programs is being concentrated in this new agency. Local agencies have been established to dispense funds and monitor progress. In New York City, the Agency for Child Development (ACD) has this responsibility.

Recognizing the need for providing competent staff and for simplifying the confusing local and state licensing requirements, OCD has funded 13 competency-based pilot training programs to initiate training for a new category of certified staff: the Child Development Associate (CDA) who is intended to be the backbone of professional child development center staff.

The new credential will be based not on courses taken or units acquired, but on demonstrated competency. OCD describes the Child Development Associate as a competent professional person who is knowledgeable about pre-school children, can provide valuable experiences for them, and is capable of taking responsibility for the daily activities of a group of young children in day-care, Head Start, parent-child centers, private nursery schools, and other pre-school programs.

OCD assumes that the Associate will:

--Have available and be in close contact with more trained and experienced staff members (e.g. a master teacher) to provide personal and professional support;

--not have direct responsibility for the extended activities of the educational service; and

--have the assistance of a paraprofessional aide.

This delineation is an attempt to bring order out of a chaotic staffing system, standardize training, establish levels of competence, and offer to participants a career path with recognized and transferable credentials.

The child development field meets many of our criteria: it is a large and growing field; it has a confused array of credentials, curricula, and training patterns; it employs many paraprofessionals who have little or no opportunity for career advancement; and the Federal CDA program is a strong indication that changes in existing patterns would be welcomed.

B. Development of the Model

Within New York City, child development is a rapidly expanding field. In addition to Board of Education sponsored programs, there are currently between 150 and 200 Department of Social Service day care centers, 122 Head Start Centers, some 1,000 homes used for family day care, approximately 500 private facilities of various kinds, and a number of new community-sponsored day care centers.

1970, New York City established a centralized Agency for
ild Development under the Human Resources Administration,
th responsibilities, except for those under the Board of
ucation, for funding and setting standards for staffing,
aining, and programming for all child-care centers. NCEY
aff met with the administrator of the Human Resources Admi-
stration and the chairmen of the Task Force working to set
the Agency for Child Development (ACD) and its sub-committee
training and new careers. They suggested a significant role
r NCEY in helping ACD with the difficult problem of construct-
g training models that would provide quality and flexibility
d lead to recognizable, transferable credentials for child-
re staff.

September 1971, ACD agreed to develop:

--Staffing patterns for child development centers;

--specification of skills and knowledge required for competent performance at different assignment levels;

--objective methods of assessing job performance; and

--a system for enabling paraprofessionals to assume higher assignment levels and for gaining credentials with the greatest possible economy of time and money.

senior member of ACD's central administrative staff was
ssigned responsibility for carryiing out its commitment to
he project and serving as liaison with NCEY.

CEY agreed to design a work-study educational model empha-
izing on-the-job training, credit for previously gained
nowledge, skills, and work experience; and an academic curri-
ulum which would permit continued full-time employment; to
btain an academic collaborator; and to involve state autho-
ities responsible for licensing, accreditation, college pro-
iciency examinations and external degrees.

e met with several private institutions and CUNY colleges.
he problem of high tuition at the private institutions was
ot solvable. Child-development (pre-school) programming
t CUNY community and senior colleges was at the early planning
tage, colleges recommended as most promising would not be
eady to discuss plans with us until late April 1972.

n May, 1972, we began discussions with two CUNY senior
olleges and one community college interested in working with
s. None were training pre-school personnel, but all were
reparing to do so.

The City College of New York (CCNY) of CUNY, was on the verge of launching an experimental program for paraprofessional child care workers and an arrangement was proposed that NCEY share some of the costs of the project from our developmental grant funds. The program was to be related to an associate degree program to be developed at LaGuardia Community College, a new work-study college in the CUNY system. These arrangements were agreeable to NCEY. By August, however, CCNY's plans had to be abandoned because their funds were not forthcoming. College officials indicated they might be able to participate by September 1973.

Meanwhile, NCEY reached an agreement with LaGuardia Community College to design and conduct a program to prepare child development workers for the Child Development Associate credential and to lead to an associate degree in its Human Services Department. LaGuardia planned to open this department in September, 1973.

LaGuardia worked out a collaborative agreement for the Hunter College School of Education of CUNY to provide the baccalaureate phase of the program.

NCEY established criteria for participating child development centers on the basis of a study of 15 centers and conferences with CDA staff and lay and professional leaders in the field.

The criteria were:

1. Willingness to participate actively in a task analysis; modify, on the basis of this analysis, its staffing patterns to provide for levels of responsibility based on the skills and knowledge needed, and to base job assignments, training, and salaries on the required competencies.

2. Willingness to integrate staff training and formal education.

3. A relatively stable administration and board, respect and cooperation of the community, and a demonstrated record of accomplishment.

4. Assurance of promotional positions for workers successfully completing the NCEY program.

5. Proximity to the colleges.

Other criteria were that the center would: (a) have a minimum of three workers who were interested in training; (b) be able to release their paraprofessionals for two half-days each week to attend classes at LaGuardia; (c) provide on-the-job experience for day care interns (regular students) from LaGuardia College; (d) have a professional staff person who would qualify as a preceptor for both the paraprofessionals and the interns; and (e) provide the preceptor released-time to conduct training and attend meetings with the faculty of the college.

ACD identified 10 centers. When we were unable to reach an agreement with any of them, we decided to locate centers on our own. This was a frustrating process. Many centers were interested but could not participate for one reason or another. After a series of meetings, we were able to reach agreements with nine centers, seven of which were identified by LaGuardia.

The size of these nine centers varies. One serves 15 children, another serves 250. Some serve only pre-school children (ages 3 to 6); some have infant and pre-school programs and others have after-school programs for school-age children.

Programs vary from extreme informality to a high degree of structure. Staffing patterns vary from an egalitarian approach (all workers perform similar duties regardless of education and experience) to formal differentiation of roles, duties, and status.

From the summer of 1972 to early 1973, NCEY employed two consultants to design and test task analysis procedures to determine:

1. Program activities in child development centers.
2. Centers' expectations of classroom staff.
3. Goals and plans of the classroom team.
4. Specific activities performed, how they combine into tasks, and how tasks help achieve center objectives.
5. Relationships with children, parents, and community, and interrelationships among members of the classroom team and between members of the team and supervisory staff.

6. Use of community resources, information about children, educational and play materials, etc.

7. Competencies and competency levels exhibited by staff in the classroom. (A modification of the SKAD system was used. This broke competencies into: Skills to perform tasks involving data and things; Knowledge and understanding to perform tasks; Ability to perform tasks involving people; and Discretionary and decision-making demands of the job.)

Instruments were developed and tested in a field trial at two child development centers. Using observation and interviews we defined each classrom job in terms of major functions, tasks comprising these functions, and activities involved in carrying out each task; identified the skills, knowledge, abilities and decision-making employed at each job level for each task; and estimated the training needed by workers to reach these levels.

LaGuardia used these data to design the curriculum. The same approach is being used to obtain data at six month intervals in each of the nine cooperating centers to provide us with information to measure individual learning and competency and to indicate needed modifications in the curriculum and training.

C. Funding

NCEY submitted a synopsis of our training model to the Office of Child Development's Regional Office for funding. The synopsis was considered by the Regional Office, but as OCD had only enough money to fund a handful of programs for the whole country, we were turned down.

At this stage, LaGuardia agreed to assume the major costs of the program if NCEY could pay for the costs of evaluation, curriculum development, and ongoing technical assistance. NCEY provided a $5,000 development grant to LaGuardia for curriculum development, but LaGuardia needed some additional money. We supported their application to the New York State Education Department and sought funding from a number of other sources, including the Office of Economic Opportunity, several private foundations, and the Manpower and Career Development Agency of New York City.

In February 1973, the New York State Department of Education agreed to provide LaGuardia with a letter of intent if a full proposal could be submitted immediately, and LaGuardia received $48,130 for the first year of the program.

D. Present Status of the Model

1. Overview

NCEY is collaborating with LaGuardia Community College, Hunter College, and nine child development centers to demonstrate how paraprofessionals in the field of child development can be trained and educated for improved job competence and enhanced career development.

The design of the program is based on an analysis of the skills and knowledge needed to perform tasks at beginning and higher skill levels. The program includes academic study, in-service training, and work-experience--all college accredited.

Thirty-two paraprofessionals employed by the nine cooperating centers were selected and began their training in September 1973. They spend the equivalent of one day a week in formal academic study at LaGuardia, the equivalent of one day a week in structured in-service training and supervision in their agencies, and three days a week in regularly assigned work activities. At the end of 18 months, they will have earned associate degrees and will be evaluated for recommendation for the Child Development Associate credential, if this credential has been established by that time.*

At that point the students work as CDAs with a recognized credential and may continue at Hunter College for a baccalaureate degree in early childhood education.

In addition to the 32 paraprofessionals, the program includes 18 LaGuardia day students who serve as interns, obtaining work experience at the nine centers. The interns replace the paraprofessionals on the job when they are attending classes.

It is expected that as the curriculum, based on classroom behavior and task analysis, is tested and refined in operation, the program will produce a body of generic knowledge applicable to many positions in the child development field.

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*As a result of our task analysis work, NCEY has received a contract from the CDA Consortium to develop a "Behavior-Based" competency evaluation instrument.

2. The Trainees

The trainees were selected from among their classroom aides by the center directors of the nine participating child development centers. The trainers are adults with a variety of life and work experiences who meet the college's entrance requirements. Some had prior college credits. This will enable them to enter with advanced standing. The interns have little work experience and are no more than one or two years out of high school.

Matching the paraprofessionals and interns should have significant impact on the students, the college, and the profession. The trainees come to class with more life and work experience, and familiarity with the child development field. The dialogue between the two groups should be beneficial to both.

Trainees were given tests in English and mathematics to determine their academic placement and remedial needs. Based on the joint findings of the NCEY task analysis and the academic requirements of the college, procedures were established to, award advanced standing for prior work and academic experience; determine the needs of students to reach the prescribed level of competence for the CDA credential, and assess students' progress in relation to the program's objectives.

3. The College

LaGuardia Community College, one of 20 branches of the City University of New York, opened in September, 1971. It is the only unit of CUNY to offer work-study programs to all of its students. The college offers both career and transfer programs and offers the associate in arts (A.A.), associate in science (A.S.),and associate in applied science (A.A.S.) degrees.

LaGuardia operates on a year-round, four-quarter system, with each quarter of 13 weeks duration.

The college, in conjunction with the employing institutions and NCEY, is developing a child development course of study which emphasizes the skills and knowledge identified in NCEY's task analysis.

The college will award the 32 students an associate in arts degree upon completion of 66 credits, and the students will then be recommended to apply for the CDA credential.

The academic program includes a core of human-service courses combined with liberal arts requirements and electives, with specialized electives comprising the child-development concentration. The college conducts the campus-based courses and structures and supervises the in-service training and work experience at the cooperating child development centers.

The students take between eight-and-one-half to twelve-and-one-half credits a quarter, completing the 66 credits required for the associate in arts in from six to eight quarters.

A basic tenet of the model, one that underpins the Child Development Associate credential, is that competencies can be developed best by interplay between practice and theory. The program uses the laboratory approach to learning. Students are exposed in classroom to the theoretical "whys" of a concrete activity that they have experienced in practice, and they get immediate opportunity to interpret college-presented theory in the practical setting.

At the work site, weekly seminars are conducted by supervisors. These seminars provide a link between practical application and the theory learned at the college. They use demonstrations, case studies, role playing, etc. The objective is to help workers obtain functional competencies in the following areas:

1. Provide for the child's physical safety, health, and comfort

2. Develop the child's physical coordination and dexterity (motor development)

3. Develop positive concepts of "self"

4. Foster the child's independence

5. Foster the child's sound growth

6. Increase the child's intellectual and language competence

7. Evaluate the child's performance and encourage achievement

8. Provide the child with new experiences, including aesthetic ones

9. Evaluate the child's individual and group progress

10. Establish positive relations with parents

11. Develop classroom management and maintenance skills

12. Establish positive working relations with other staff members.

After the task analysis, consultation with experts in the field, and discussions with the cooperating center supervisor-preceptors, four all-day conferences were held during the summer of 1973, to determine curriculum content, methodology and procedures, and to develop the linkage between college and work-site learning. The courses of study in the curriculum are:

Basic Skills Courses (0-10 Credits, Depending on Remediation Needs)

English and Humanities Requirements (9 credits)

Basic Composition
Introduction to Art
Introduction to Music

Math-Science Requirements (9 credits)

Structure of the Number System
Topics in Biological Science
Topics in Physical Sciences

Social Science Requirements (9 credits)

Introduction to Social Science
General Psychology
Developmental Psychology (Child)

Cooperative Education Requirements (9 credits)

Six Part-time Internships, 1 1/2 credits each

Human Services Core Courses (9 credits)

Orientation to Human Services
Principles in Human Relations
Community Dynamics (Course to be offered also as an intensive pending approval)

Child Development Concentration Courses (9 credits)

Developmental Activities for Young Children in Social Living
Developmental Activities for Young Children in Language
Developmental Activities for Young Children in Mathematical Understandings
Developmental Activities for Young Children in Scientific Attitudes and Concepts

Liberal Arts Electives (12 credits)

Note: One elective must be an intensive*

4. The Employer Agencies

The employers are nine centers located in Queens and on the Lower Eastside of Manhattan. Two of the centers were observed as part of NCEY's initial task analysis.

The nine cooperating centers are:

Better Community Life
Grand Street Settlement
Hallet Cove
Macedonia
Malcolm X
Negro Action Group
North Queens
Resurrection
Woodside

The centers service a total of 688 pre-school age children, with a classroom staff of 110. Each center has designated one professional staff member to work with LaGuardia and NCEY to serve as preceptor, develop curriculum, receive preceptor training, supervise the on-site work of the paraprofessionals and interns, conduct on-site seminars, and provide the college with regular evaluation of the students.

Preceptors attend monthly meetings and provide feedback between center and college. In addition, LaGuardia faculty members visit each center twice a month to observe and provide on-site consultation for students and preceptors. The monthly preceptors' meetings provide opportunities for center supervisors to discuss common problems and share information and experiences in child development and staff training. Other members of the Centers' staffs are included in the on-site seminar sessions. A training manual with audio-visual components, linking child development learning theory more closely with classroom practice is being developed.

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*Intensives meet for five full days at the beginning of the fall and summer quarters; then students meet one hour a week, pursuing special projects relating to the intensive subject area.

As opportunities in the centers open, trainees who satisfactorily complete the program will be promoted. A key to the success of this model is the participation of group teachers. Each trainee works with a group teacher. LaGuardia holds quarterly meetings with the group teachers to integrate them into the program.

5. Staff

LaGuardia's Director of the Human Services Department has overall responsibility for the program. In addition to the nine center preceptors, the program is supervised by two LaGuardia faculty members. NCEY contributes one of its staff members half-time to help coordinate the activities.

6. NCEY

In addition to providing technical assistance, NCEY is evaluating the program. The costs of this evaluation and feedback to the college and centers are being met from NCEY's Department of Labor contract.

E. Conclusions

When the Office of Child Development announced the creation of a competency-based CDA credential, NCEY considered designing training programs without college credit to qualify paraprofessionals for this credential. We decided against this approach as the CDA credential had not yet been established and the college degree would open up other opportunities for upgrading and mobility.

The child development worker in this program will have several upgrading opportunities: movement to an assistant teacher position; application for the CDA credential; continuation for a baccalaureate degree in early childhood education; and movement to a related human service or education field. The four-year degree will open other options: group teacher, supervisory or administrative positions, and public school teaching. This career lattice will be available to recent high school graduates as well as to adult workers. Work-study programs provide young people with experience in a career area before fully committing themselves.

A major problem is a lack of funding for the day-student interns. While some are eligible for work-study scholarships, most are not. Even where there are work-study scholarships, some of the centers have not been able to meet the required twenty percent sharing of the work-study cost. We are seeking funding sources to resolve this problem.

CHAPTER IV

OCCUPATIONAL THERAPY MODEL

A. Introduction

Occupational therapy is a health profession which employs purposeful activities to improve physical and emotional well-being. The patient is an active participant in the use and development of manual and social skills directed toward attainment of immediate and ultimate life goals. The occupational therapist evaluates the patient's work habits, endurance, motivation, abilities, and physical, cultural, and psychological characteristics in relation to his goals,potential and achievement.

The demand for occupational therapy services is increasing more rapidly than qualified personnel are being trained. The Bureau of Labor Statistics has stated that "demand is expected to exceed supply as interest in the rehabilitation of disabled persons and the success of established occupational therapy programs increase." These shortages are national, intra-state, and local.

The Bureau of Labor Statistics has estimated the average annual number of openings for OTs to 1980, at 1,150 a year; for OT assistants, 1,300.

The American Occupational Therapy Association has estimated that 7,800 OTs were working nationally as of November 1971 and that the 36 accredited schools were graduating about 780 students a year.

AOTA has also estimated that there are 35 accredited programs for OT assistants, graduating about 400 students a year.

In New York State, there are large numbers of unfilled jobs for OTs and OT assistants, which cannot be filled unless alternative labor sources are identified and new methods of education and training developed.

In 1969, the New York State Department of Health surveyed full and part-time OTs employed in hospitals in the state and found more than 330 unfilled, budgeted positions--33 percent of the total budgeted for OTs. Additional positions were needed but unbudgeted. A 1970 study by the Department recommended that New York try to reduce its dependence on out-of-state schools for the training of OTs by supporting additional schools within the state. There are now five OT schools in the state which graduate between 80 and 90 students a year. In 1971, there was only one accredited program in New York State for training OT assistants; about 50 students were graduated that year.

The New York State Department of Mental Hygiene last year reported 30 percent of its budgeted OT positions are vacant and unfillable because of the shortage of therapists.

Occupational therapy services are needed and used in a steadily increasing range of health and mental health facilities, including hospitals, rehabilitation centers, nursing homes, schools, and home health-care agencies.

Far-reaching changes in health-care facilities and patterns of care have taken the OT field well beyond its traditional functions and work sites. Prevention of illness and disability through community information and education programs is increasingly emphasized. OTs are serving as staff members and consultants for a widening range of community-based facilities and services, such as halfway-houses and store front centers. OTs are key members in the team approach to prevention, treatment, and rehabilitation. There will be increased utilization of OTs as local programs expand and centralized institutions are decentralized.

Restructuring of the OT profession and upgrading of paraprofessional skills are needed to reduce costs and increase the number of trained therapists. This should include new staffing patterns, retraining of present staff, and new educational programs.

The credentials required for an occupational therapist are a bachelor's degree in OT and registration by the American Occupational Therapy Association. The latter is obtained by successfully passing an examination.

More than ten years ago, AOTA adopted the concept of training and utilizing OT assistants. These workers, Certified Occupational Therapy Assistants (COTA) are trained in either a 20-week hospital-based program or a two-year community college program. The community college program is preferred because the academic credits earned are transferable to baccalaureate programs.

Unlike most other professional associations, AOTA is actively seeking to open the profession to persons who can demonstrate OT knowledge and skills, however obtained. AOTA recently passed a resolution making it possible for a Certified Occupational Therapy Assistant without a baccalaureate degree to sit for the registry examination.

OT departments in every health institution employ workers in assistant and aide-type positions who are familiar with OT work and have developed some skill and knowledge of OT. If given opportunities for advancement, these workers will provide an excellent and largely untapped source of OT skills.

In addition, there is a much larger pool of aides, attendants, and assistants with similar attributes and skills in health institutions. Many are from minority groups. Their familiarity with minority community needs and problems can be valuable as the delivery of O.T. services moves into poor communities. These workers are barred by economic conditions from attending existing programs.

B. Development of the Model

Early in 1970, NCEY explored the possibility of obtaining a major New York State agency as a collaborating employer. Meetings were held with the President of the State Civil Service Commission and her staff, the Commissioner of Health, the Health Department's Director of Special Manpower Programs, and officials of the Department of Mental Hygiene.

The State Department of Mental Hygiene (MHD) was deemed the most appropriate agency. It has 55,000 employees, many at the paraprofessional level, and a commitment to the union representing these employees to develop career ladders and appropriate training programs in nine occupations.

Career ladders were established but were incomplete or deadended at several rungs. Rigid requirements for licensing and credentialling at the associate, baccalaureate and graduate degree levels were bars to advancement. No provision was made for accrediting work experience or in-service training.

It took little effort to obtain the Department's commitment to participate with NCEY in a demonstration program.

The nine human service occupations were examined jointly by NCEY and MHD from the standpoint of the existing and future manpower and service needs of the Department. Of the nine occupations, physical therapy had the highest percentage of vacancies. Occupational therapy was second. However, there are four times as many OTs as PTs, and occupational therapy is more important in mental hospitals.

The seven other occupations considered were:

--psychiatric nursing, psychiatric social work, speech therapy, hearing therapy, and recreation therapy. Each had too few workers to serve the project's purpose;

--Psychology. This called for a Ph.D. degree;

--Mental health generalist. This was a new occupation whose roles and functions had not been delineated.

OT was the natural choice.

An agreement was reached in January 1971 for MHD to change the job specifications for the OTs it employed, to design a career ladder, and to recommend an appropriate institution for a demonstration project.

NCEY agreed to design the training model and to identify and involve colleges and licensing and accredidditation agencies.

Negotiations were undertaken with a number of hospitals identified by MHD. The head of one hospital proposed that we replace OT with a new profession: rehabilitation specialist. After discussions with several consultants, it was determined that our goals would not be met by preparing workers for a new and ill-defined profession.

Extensive negotiations with another hospital, with a strong in-service training program, were discontinued after several months when statewide cutbacks in the MHD budget resulted in a job freeze that raised doubts that the hospital would be able to carry out its commitments to provide promotional opportunities.

NCEY's continued search for a clinical collaborator led us, at the suggestion of MHD's manpower utilization specialist, to Rockland Children's Psychiatric Hospital (RCPH), a new facility with no training programs. The hospital director was most cooperative. However, RCPH could provide only four trainees at one time, and OT experiences solely in the children's psychiatric setting. There was a need for other institutions to provide trainees and further clinical experiences. At this time, the State job freeze was lifted, and RCPH's Director obtained the cooperation of three other Rockland County State hospitals.

The State Health Department agreed to permit one of its institutions to be part of the consortium. This is important since training opportunities in OT should include work experiences in physical rehabilitation medicine as well as in mental health.

The three other institutions who agreed to collaborate are:

--Rockland State Hospital: a MHD inpatient psychiatric facility which provides care and treatment for patients 18 years of age and older.

--Letchworth Village: a MHD inpatient facility which provides care and treatment for mentally retarded persons three years of age and older, and special care for the retarded with physical handicaps.

--New York State Research and Rehabilitation Hospital: a State Health Department residential treatment center and out-patient clinic for the physically handicapped of all ages.

RCPH itself is a MHD inpatient facility which provides care and treatment for children from six to 16 years of age.

MHD agreed to offer graduates employment and if the program was successful to use the model at other MHD institutions.

Early in 1971, AOTA officials endorsed the concept and agreed to participate in the development of the program and to provide consultant assistance during the planning stages. The director of AOTA's Committee on Standards and Educational Requirements was designated as liaison to the project and participated in program design and curriculum development.

Only three institutions in New York City prepare OTRs, and none prepare COTAs. After consultation with AOTA, it was decided that it would be easier to establish a new program than to change an existing one.

The Hunter College Institute of Health Sciences indicated an interest if we could obtain community college participation, since the Hunter Institute offers only the third and fourth years of a baccalaureate program. Contacts with City University of New York community colleges produced no results.

However, Rockland Community College, part of the State University system was interested and we quickly reached an agreement. Rockland Community College was already conducting educational programs for employees in the four collaborating clinical institutions. The State University of New York and the State Department of Education had designated the college to develop a curricula to prepare workers in a wide variety of human services agencies.

With a commitment by RCC, the Hunter Institute agreed to offer the two-year senior college program for OTR's. The facilities of the clinical institutions enabled both Hunter and RCC to open OT programs without the prohibitive cost of setting up clinical laboratories. Their qualified OT personnel are available to augment the instructional staff of both colleges.

From November 1971 through May 1972, a planning committee met regularly to prepare a comprehensive funding proposal. The committee consisted of representatives of the clinical and academic institutions, AOTA, NCEY and State manpower consultants. The committee decided that a job analysis was essential if we were to effect changes in OT preparation and practice, and that a curriculum should reflect the job-analysis and new trends in the OT field. NCEY provided a $5,000 developmental grant to RCPH for the conduct of the analysis.

Of considerable importance to the job analysis was a study conducted at Ohio State University. RCPH's chief OTR conferred with the director of the Ohio State study regarding the kinds of issues to raise in structuring the local job analysis. Jobs performed by OTs and OT Assistants in the four hospitals were studied to obtain information which would: (1) distinguish the tasks performed by OTs and assistants; (2) determine the kinds of experiences which could be given academic credit; (3) provide the basis for developing classroom and clinical curricula; and (4) indicate needed preceptor training.

The OTR and OT assistant positions were analyzed. Questionnaires relating to tasks performed and estimates of their relative importance were administered. These were spot-checked at one institution. There was good agreement among respondents and with the field check.

Job-analysis findings led to a redefinition of roles for OTRs and COTAs to include functions not in the task analysis, and to reallocate tasks for more effective use of the work force. The new OTR role is supervisor, consultant, educator and hghly trained specialist; the COTA role is that of "general practitioner."

The activities of OT personnel were defined:

1. Evaluate the individual's need for activity by eliciting information from interviews, tests, reports, records and other sources which indicate the nature and extent of impaired functioning; the nature and level of work capacity, attitudes and self-care skills; and the need for remedial activity.

2. Plan activities appropriate to the individual's defined needs and goals by identifying the kind and level of learning which needs to occur, and in what order; selecting appropriate activities; identifying the skills required to perform these activities, identifying contraindications for involvement in a given activity; consulting with other staff; and investigating resources in the agency, other institutions, the community, and in the home.

3. Facilitate and influence the individual's participation in activities by counseling the individual in preparation for, and participation in, activities; utilizing and reinforcing the individual's strengths and skills; sequencing activities appropriate to the individual's stage of development and level of functioning; using group and interpersonal dynamics to engage and maintain the individual in the activity.

4. Evaluate response and assess and measure change and development by observing progress, testing, consulting with other staff, and discussing progress and reviewing goals with the individual.

5. Validate assessments, share findings, and make appropriate recommendations by retesting, modifying evaluation procedures; comparing findings

with reports of other individuals and activities; summarizing findings for further interpretation and planning, and preparing oral and written reports for other staff.

Using the task analysis data, a curriculum coverning both academic and practicum elements, was prepared by a subcommittee composed of the Dean of Academic Affairs at the Hunter Institute, two OTR consultants, and NCEY's liaison representative to the OT program.

Six broad areas were identified:

I. Generic knowledge and skills
II. Normal growth and development
III. Cognitive and perceptual motor dysfunctions
IV. Physical dysfunctions
V. Daily life tasks, including vocational evaluation and training
VI. Psychosocial dysfunctions

Areas I and II are common to all allied health occupations and could be used as the basis for a core curriculum.

C. Funding

A first draft of a grant application was prepared for submission to the Bureau of Health Manpower Education of the National Institutes of Health in early 1972.

A revised draft application was submitted early in June and a formal application was submitted June 30, 1972.

As NIH's decision was delayed, we requested the New York State Department of Civil Service to include this proposal in its Public Service Careers Contract. We were turned down.

After considerable correspondence, a series of meetings, and an aborted site visit, we were informed, in April 1973, that our proposal had been approved by the Council and Review Committee at BHME, but that no funds were available. We turned our attention to private funding sources such as the Johnson, Carnegie, and Rockefeller Foundations. However, in June 1973, BHME notified us that $204,533 for the first year of our proposed five-year program was approved effective July 1, 1973. We were one of only three programs funded nationally by BHME.

D. Present Status of the Model

1. Overview

A consortium of four New York State Hospitals, two degree-granting institutions, the New York State Departments of Health and Mental Hygiene, and the American Occupational Therapy Association are collaborating with NCEY.

Sixteen workers on full salary status will be enrolled annually for a five-year period. Their goals are to become certified occupational therapy assistants (COTA) and registered occupational therapists (OTR). The education based on job analysis, combines clinical practice in the hospitals with academic instruction at the colleges and in the hospitals.

The clinical institutions--Rockland Children's Psychiatric Hospital, Rockland State Hospital, the New York State Research and Rehabilitation Hospital, and Letchworth Village--pool training facilities and trainees to provide broad, diversified experiences.

The collaborating colleges--Rockland Community College and the Hunter College Institute of Health Sciences--will initiate OT programs using the hospitals as laboratory facilities. They will credit clinical and academic work conducted at the work sites by college instructors and staff of the employing institutions. The two college components are articulated to eliminate duplication of academic work.

AOTA will use the student group to validate proficiency standards it is developing.

The participants are being prepared to perform the newly defined COTA and OTR roles.

The collaboration among employing and academic institutions, a professional association, a union, State agencies, and a national voluntary agency, makes this project unique.

2. Policy Board

A Policy Board which includes one representative from each of the four collaborating clinical institutions, the two colleges, AOTA, NCEY, the special manpower programs of the Health Department, the manpower utilization staff of the Mental Hygiene Department, and at least one student representative, sets policy for the project.

3. Staff

The staff consists of a program director, six OTRs, an evaluator, and a secretary. The program director is responsible for managing the demonstration, including the education and training curriculum, staffing, staff training, relationships among the collaborating institutions, and other administrative tasks. Two OTRs are education and training coordinators--one at Rockland Community College and one at Hunter. They conduct the academic programs, coordinate instructional activities with clinical experiences, teach some courses, provide academic guidance to students, and prepare students to take examinations for proficiency accreditation and registration. Four OTRs are preceptors, one in each of the four clinical facilities. They give clinical instruction, student supervision and counseling, and manage scheduling of students' time. The evaluator is responsible for evaluating the project and feeding back findings to the program director and Policy Board. In addition, part-time instructors are provided for Rockland Community College and the Hunter Institute to teach courses not covered by the education and training coordinators, the preceptors, or other clinical and academic faculty. Tutors are employed to assist students in strengthening academic skills such as reading, report writing, and mathematics and science fundamentals. Consultants are employed to plan and conduct staff training workshops, develop and administer proficiency measures for students, and to serve as guest lecturers.

Three training workshops were held for the administrative and instructional staffs of the colleges and collaborating institutions. In future years, annual two-day training sessions will be held.

4. Employing Institutions

Employing institutions and the union recruited, screened, and recommended candidates for the program. In addition to generic OT training at all institutions, each institution offers special learning opportunities for all trainees:

> The New York State Research and Rehabilitation Hospital--experience in rehabilitation of patients of all ages with physical dysfunctions.
>
> Rockland Children's Psychiatric Hospital--instruction in interdisciplinary team approach to habilitation and rehabilitation.

Letchworth Village--practice with the severely, profoundly, and multiply handicapped retarded.

Rockland State Hospital--experiences with the mentally ill of all ages, including geriatric patients.

Trainees' work and vacation schedules are arranged so that they can participate fully in training. Promotion to COTA and OTR positions are assured to all enrollees who qualify, in accordance with provisions of the OT career ladder series of the State Civil Service Commission.

Clinical assignments for students are made within the four institutions and include at least three months in each institution, enabling students to experience the full range of OT services.

The full-time preceptor (an experienced OTR) assigned to each clinical institution has day-to-day responsibility for supervising, instructing, and counseling students.

5. Collaborating Colleges

These institutions offer articulated associate and baccalaureate degree programs. The colleges credit clinical practice and in-service training at the hospitals. The academic programs operate on a year-round (11-month) basis.

Whenever feasible, academic instruction takes place at the hospitals. The preceptors and the academic coordinator have faculty status at Rockland Community College and teach OT courses. The directors of the OT departments have been designated as clinical instructors by the college.

Students are expected to achieve associate degrees and become COTAs in one to two years. They may go on for the baccalaureate degree at Hunter and sit for the OTR examination when they are ready.

6. American Occupational Therapy Association

AOTA has two distinct roles in the project:

a. As the licensing body in the field, AOTA's participation in the planning of the project assures that the program for preparing COTAs will be accredited, and that students who complete the baccalaureate phase will be eligible to sit for the OT registry examination.

b. Under a Federal contract with the Bureau of Health Manpower, AOTA is delineating entry-level roles and functions of OT personnel in detail sufficent for the construction of proficiency examinations. AOTA will use our project as a testing ground for these standards.

7. National Committee on Employment of Youth

NCEY provides: (a) fiscal management and control; (b) technical assistance; (c) monitoring and evaluation of the operating program; and (d) feed-back to collaborating institutions. In addition, NCEY will prepare a final report describing the program, evaluating the different components, and recommending guides for modification and replication.

8. Specialists in the State Health and Mental Hygiene Departments

The Health Department's director of special manpower programs and the Mental Hugiene Department's manpower utilization specialist give consultant help to the project, and are studying the project for replicability.

9. Students

For the first year, sixteen aide or assistant-level personnel working in OT departments of the hospital were selected. The second through fifth cycles will draw from the much larger pool of patient-care personnel at the aide or attendant level.

Recruitment and selection of candidates is by education commitees in the collaborating institutions. These have management, union, and project representation.

Selection procedures include evaluation of candidates' work records and attendance, interviews to assess motivation and aptitude, and written tests to insure that reading and writing skills are adequate to permit participation in the program.

Students' proficiency is assessed in three areas: academic subjects, professional knowledge, and clinical practice. Academic assessment is based on standardized and faculty constructed tests.

Performance on appraisal instruments and observed competence helps determine what learning experiences are necessary for a particular student, and what advanced standing can be given.

D. Conclusion

Steps are being taken to establish a training base in each collaborating institution to continue the program after the demonstration period. Both colleges are studying ways of providing continuing support once NIH funding ceases.

The Rehabilitation and Research Hospital is planning substantial expansion of staff and facilities over the next five years, and there is good reason to expect that the present high degree of interest will result in the continuation of training there.

We have a commitment from the director of Rockland Children's Psychiatric Hospital to continue training beyond the life of the program and to maintain the collaborative effort.

The Office of Manpower, Employee Relations, and Training of the Mental Hygiene Department will make the results and procedures of the project available to other institutions in the State system and help them to undertake similar programs. The Office will also ask the State Education Department to add such programs at other state colleges.

AOTA's tests of its proficiency standards will provide national exposure of the project.

CHAPTER V

TEACHING MODEL

A. Introduction

When NCEY investigated teaching as a potential occupational area, supply and demand in the field indicated the paradox of a nationwide easing of the teacher shortage, coupled with a severe teacher recruitment problem in urban ghettos. The 1970 Occupational Outlook Handbook stated: "The number of qualified teachers may exceed openings if present enrollment projections and trends in number of newly trained teachers continues." The national need was estimated for 56,300 teachers each year to 1980. In New York City, however, with three percent of the nation's population, the need was estimated at 6,850 new teachers a year, more than 12 percent of the national need.

The prime cause of New York City's teacher shortage is the high turnover of staff in ghetto schools. It is no coincidence that the areas with the highest teacher turnover rates are also those with the highest unemployment levels. Poverty programs, and particularly Title I of the Elementary and Secondary Education Act, have attempted to confront these problems by funding programs for teacher aides in low-income schools. There are approximately 6,000 paraprofessionals presently working in New York's public schools, most of them employed under ESEA Title I funds.

Attacks during the Sixties on conventional teacher preparation programs for their inability to produce teachers able to teach minority group children, forced educators to reexamine this process. Traditional practice-teaching courses disperse students over a large number of schools, making program supervision difficult and evaluation and change virtually impossible. The lack of coordination between the public school system and the teacher colleges fragments teacher education and inhibits the integration of theory and practice.

The legislation that created decentralized, community-controlled school districts in New York City eliminated special New York

City licensure requirements for teachers employed in schools with low pupil achievement. Approximately 40 percent of all elementary and junior high schools in New York City fall into this category (a total of 313).

The New York State Division of Teacher Education and Certification is sponsoring pilot programs, initiated by coalitions of interested school-related groups, to develop competency-based training and credentialing programs for teachers. Such coalitions must include local school boards, teacher training institutions, professional school staff, student teachers, and local teacher organizations (i.e., unions). The participation of other interested community groups is encouraged.

To conduct a pilot project, a coalition has to: (1) determine the kind of teachers the local community wants in its schools; (2) define the outcome of a training program, with as many alternatives as possible to meet the stated goals; and (3) design and implement a training program.

The Division assists and consults in the planning and execution of demonstration projects and serves as project historian. State certification is to be granted to successfull participants in the project's program.

There are few data for designing a competency-based teacher training program other than data derived from traditional programs and experience with student-teacher courses. The data needed to guide and legitimate classroom competency as a basis for teacher certification should flow from projects designed expressly for that purpose. New kinds of training and educational programs may be necessary if competency-based credentials are to reflect competency and not merely a new way for presenting traditional programs.

A further thrust for a new program comes from the needs of the 6,000 paraprofessionals in the New York City School system for whom the traditional program is totally inappropriate.

B. Development of the Model

Teaching was selected as an occupation despite the national surplus of teachers because: (1) the New York State Education Department mandated that teacher preparation programs move toward competency-based curricula; (2) there were shortages and high turnover rates of teachers in many New York City school districts; and (3) there are 6,000 dead-ended paraprofessionals in the New York City system.

In the fall of 1970, we met with the Director of the New York City Board of Education Auxiliary Educational Career Unit, to obtain information about career advancement opportunities for paraprofessionals. Advancement was dependent upon completion of traditional academic courses, with no credit given for work experience. Paraprofessionals could pursue part-time study and be reimbursed for up to 18 college credits a year. In some cases, they might be given a one-year sabbatical for study.

Next, we attempted to identify a local school district which met NCEY's criteria for employers and the State's standards for developing competency-based programs. Efforts were greatly complicated by the fact that school decentralization was just taking place and the newly created local school districts needed time before they could consider collaboration with NCEY.

By the end of 1970, we identified three districts interested in participating in our design. One was in a middle-class area of Queens and was not appropriate for the project. The second, in Manhattan, terminated negotiations when other, higher-priority, demands were made on it. The third, a Community School District in Brooklyn, was looking for ways to speed teacher preparation for its paraprofessionals. By April 1971, NCEY had a verbal commitment for collaboration from the district's Superintendent. For nine months we worked with district staff on developing the model and obtaining college collaboration and funding. In January 1972, relations were severed with the district when we realized that the Superintent would consider implementing the model if it met certain non-educational objectives of the local school board.

NCEY staff subsequently met with representatives of seven other districts. Some proved unsuitable because of internal problems and tensions. Others were uninterested because they were fearful of hiring teachers without city licenses. Community School District #9 (Bronx) was finally selected because of its receptivity to NCEY's design and its reputation for action in line with its convictions. State certification officials encouraged us to consider District #9, and we quickly worked out a formal agreement with the district superintendent. We worked with District #9 until July 1973, in developing the model.

Community School Board elections were held June 1, 1973, in New York City. The majority of the incumbents of School Board #9 were not reelected and the District Superintendent left after July. The new administration did not feel it was in a position to undertake the project because of unrelated internal conflict. The state of completion of the model permitted us to go to school district #8 and obtain rapid agreement for collaboration.

While negotiations were in progress with the school districts, we held discussions with eight different colleges. At one, considerable interest was shown by administrators of the school of education, but little interest by liberal-arts administrators who controlled the degree requirements. A second was unready to change its accrediting methods to include assessment of knowledge gained outside conventional courses. A third, located out of New York City, offered to consult in the development of the model but could not afford to initiate an independent program in New York City.

A fourth offered to include enrollees in teacher-education courses then available, but said further curriculum changes would be too costly to plan and operate. A fifth showed interest in working toward a flexible teacher-education curriculum, but had reservations about the academic backgrounds of the prospective students and suggested that the paraprofessionals attend a community college before enrolling in a four-year college. A sixth considered collaboration with NCEY but decided that its teacher education program was insufficiently staffed. Negotiations with two other colleges were halted when relations with the Brooklyn school district were severed.

When agreement was reached with district #9 in the Bronx, NCEY staff explored collaboration with three colleges in the City University of New York system. A preliminary visit to one of the colleges did not encourage further discussion. At a second we found considerable interest, but officials of its school of education informed us that because of budget cuts, no staff member could be made available to work with NCEY until the spring of 1973.

We finally were able to obtain the full cooperation of the Bernard M. Baruch School of Education, which agreed to become the academic collaborator. As the college was conducting a career ladder program for bi-lingual professionals in one of the local school districts in Manhattan, the faculty had experience with the type of problems that the NCEY model presented and were eager to develop a competency based model.

NCEY provided Baruch with a $5,000 development grant to pay for staff time in developing the design.

Starting in June 1972, two Baruch College representatives worked with NCEY on developing a proposal for the classroom teacher project.

Cutbacks in Federal Government and foundation funding hampered our efforts to obtain the amounts necessary to operate and evaluate the model. We therefore developed a number of alternative funding strategies. We gave up looking for a single funding source, and are seeking support from a variety of sources, each of which could fund portions of the project. To date, we are assured funds to pay for 18 credits a year for project participants from the Board of Education - United Federation of Teachers union contract. The Baruch School of Education has received a grant of $20,000 from the City University of New York to develop the curriculum. We are attempting to obtain a small grant to develop the research and evaluation components.

C. The Model Design

1. Overview

NCEY collaborated with the Bernard M. Baruch School of Education and Community School District #9 (Bronx) in designing a five-year program to upgrade classroom paraprofessionals to certified teachers. This has been modified on the basis of our current relationship with school district #8. The model bases teacher education on identified teacher competencies and classroom behaviors which are derived from pupil-learning objectives, and builds on the already acquired knowledge and competencies of paraprofessionals. Pupil learning objectives will be developed jointly by representatives of the community, the school district and the college. The model integrates learning and work more closely than present teacher preparation programs. It will provide a well-defined and shorter route for paraprofessionals to advance to professional status, and a unique experience for a group of classroom-based teacher-trainers.

The model will include as basic research elements (to the degree we can obtain funding): (1) develop and test criterion measures to assess teacher competencies: (2) construct and test new pupil performance measures; (3) develop and test techniques for assessing the effects of changes in management and administrative structure; and (4) construct and test assessment procedures for determining advanced standing, exemption from individual courses, and credit for work experience.

Thirty paraprofessionals a year for three years, selected from schools in district #8, will be enrolled at Baruch College in an integrated program of education, training and work experience, leading to State certification as early childhood teachers. The fourth and fifth years of the program will focus on evaluating the overall effectiveness of the design.

The model changes credentialling emphases from passing college courses to demonstrating classroom competency. A teaching center has been established within the district by the college to provide a laboratory for classroom teacher-trainers, paraprofessionals, and student teachers to observe, discuss, and try out new teaching methods. The program uses both campus and worksite. The liberal arts sequence will take place mainly on campus and the professional sequence mainly at the worksite. The concentrated professional learning will take place at the worksite, in real classrooms with children, under the guidance of classroom teachers, supervised by college faculty. The classroom teacher-trainers, recruited from schools in the district. will have adjunct faculty status and be enrolled in a master's program at Baruch.

Although the target population in this model is the employed classroom paraprofessional, the model has application for all students preparing for careers in teaching. Teachers prepared by this method should reach a higher degree of competence, more rapidly, than in traditional methods and should be better equipped to meet the educational needs of changing pupil populations.

2. Parity Board

A Parity Board is being organized, composed of representatives of the college, school district. NCEY, principals, teachers, paraprofessionals, parent associations, union, and the community at large. The Board will be responsible for identifying pupil learning objectives for early childhood classes in the district, overseeing the identification of teacher competencies, and supervising the design, implementation and assessment of the project.

3. Employing Agency

Community School District #8 (Bronx) will serve as the demonstration laboratory. District #8 is a designated poverty school district, and all of its schools receive ESEA Title I funds. The paraprofessionals, the teacher-trainers and the participating schools, will be selected from the district. Community representation will come from interested residents and parents in the district. The district designated two of its schools as teaching centers. The district has made a commitment to hire graduates of the program as teacher lines become available.

4. Academic Institution

The Bernard M. Baruch School of Education of the City University of New York has major responsibility for designing the curriculum, training processes, and assessment tools required. The college will conduct an on-going evaluation of process and content.

5. Trainees

Paraprofessionals will be selected from participating schools in Community School District #8 on the basis of interest, recommendation of superiors, and eligibility for admittance into college. To meet the immediate needs of the district, the first year enrollees will be paraprofessionals who already have some college credits and who have demonstrated classroom competency. The college will enroll them in an existing baccalaureate program adapted for their educational needs, utilizing the new design to the extent possible. The program is expected to halve the time they need to become certified teachers. The first group of trainees will be used to test and revise competency measures for subsequent groups.

The second and third year enrollees will be a mix of paraprofessionals at various steps on the career ladder, who will be prepared for a baccalaureate degree and teacher certification in the new competency-based model.

6. NCEY

The National Committee on Employment of Youth will serve as the catalytic agency and sponsor. NCEY will coordinate, facilitate, monitor and audit the demonstration project. It will offer technical assistance, conduct the overall program evluation, and provide fiscal management.

7. Union

The United Feration of Teachers, which represents both classroom teachers and classroom paraprofessionals, has been kept informed of our actions and its advice has been sought concerning specific planning.

8. Curriculum

The curriculum will be based on identified teacher competencies derived from pupil learning objectives. Once the pupil learning objectives are determined, task analysis will be undertaken to identify teacher tasks and related competencies and the effects of teacher classroom behavior on the achievement of classroom objectives. A team of college educators, school principals, teacher-trainers, and community people will make the initial definition of teacher competencies based on the data from the task analysis, an analysis of the literature, and an analytic projection from the pupil learning objectives. This definition of teacher competencies will be reviewed by independent educational experts, the union, and the Parity Board. Periodic task analyses of the work of classroom teachers will be used to evaluate the changing roles and progress of both paraprofessionals and teacher-trainers. As measures of competencies are developed and tested, relationships will be sought between specific competencies and constellations of competencies, and between these and pupil learning. Feedback from these studies will be used to refine the competency based teacher training curricum.

9. Evaluation

A management information system will be established to provide continuous data on student progress and interrelationships of program components, to determine accountability for each aspect of the program, to estimate cost-effectiveness, and to provide a basis for program evaluation.

Ongoing data collection will provide information for program feedback, data for formative research, and baseline data for evaluative research. Some examples are:

a. Videtape samples will be used for self-guided analysis by paraprofessional student-teachers and the teacher-trainers.

b. Competency assessment data will periodically be made available to the Parity Board to gauge pace and direction of the new teacher-preparation curriculum.

c. Pupil progress toward learning goals will be assessed.

d. Recorded experiences and measured performance by students, teacher-trainers, administrators and others will be used to refine the program during the field trial.

After one semester of the field trail, there will be a brief preliminary evaluation to help the Parity Board make decisions on possible needed revisions. There will be a full-scale evaluation at the end of Year 2, after one calender year of field trial of the new model. Evaluation institutes will be held in the summers following Years 3 and 4. Final evaluation and report will be completed at the end of Year 5.

D. Conclusions

The major delays in the development of this model resulted from our inability to obtain employer and college collaborators quickly. The false starts seriously affected our ability to obtain funding. The climate was much better for funding in 1970, 1971, and the beginning of 1972, than it is now. Had we obtained collaborators earlier, it is possible that this program would now be operational. This design is an ambitious one, and necessarily so, for if competency-based education is to have validity, it must not only be rigidly tested, but it must also produce teaching results that are better than those yielded by existing models.

There is a need for valid and reliable instruments to measure teacher competency and behavior. The instruments which are developed in this program should be useful for other educators and school districts.

This model is a step in the direction of extending modular and programmed learning systems, which have been developed for children and adults, to the training of teachers.

Much time, money and energy have gone into the theoretical research. It is time for a test run. Our model may demonstrate that competency-based education is an answer. It is dependent on the goals set for the children; goals set by parents, educators, and communities. We do not presume that a set of competencies specified for a school district in New York City could be used without modification in Appalachia, Chicago, Denver, or even another district in New York. Approaches, styles, and goals will differ from place to place and teacher competencies must be tied to the specific pupil learning objectives for a given group of children in a given area. We do believe, however, that all children have certain basic needs in common, and this belief will hold anywhere in the world. The teacher competencies developed may have universal application where common teaching skills are needed to meet common pupil learning objectives for any group of children.

CHAPTER VI

PUBLIC HEALTH NURSING MODEL

A. Introduction

When we first considered this occupation, there was a documented national shortage of nurses. At the present time there is some doubt as to the degree of this shortage. However, passage by Congress of a national health-insurance program could lead to a vast increase in demand, particularly in New York City.

While there is some question about shortages of registered nurses, there is no question about the need for Public Health Nurses, who have education and training beyond that of registered nurses. Under state regulations, Public Health Nurses are required to have a baccalaureate degree in nursing, pass the New York State examination as Registered Nurses, and complete at least one scholastic year (30 credits) of training in an approved public health nursing program.

Public Health Nurses provide care, as prescribed by physicians, for patients in clinics and in their homes; teach health maintenance, including nutrition, to patients, families and community groups; work with community leaders, teachers, parents and physicians, in community health programs and in schools.

The New York City Health Department has never been able to obtain enough Public Health Nurses for the city's school-health programs. Planned expansion of community health facilities will aggravate the public health nursing shortage.

Below the Public Health Nurse on the career ladder is a Staff Nurse--a registered nurse without the special public health training. The Staff Nurse can administer medication and treatment prescribed by physicians; observe, evaluate and record symptoms, reactions, and progress of patients; and perform other duties concerned with the care and prevention of sickness and injury in the promotion of good health. She is required to have completed an approved nursing program and pass the State registration examination.

To compensate for the acute shortage of Public Health Nurses, the Health Department created the position of "Junior Public

Health Nurse," with duties similar to but less responsible than those of the Public Health Nurse. Junior Public Health Nurses are registered nurses who cannot advance to Public Health Nurse without obtaining additional education.

The shortage of Public Health Nurses is so great in New York City schools that "Public Health Assistants," high school graduates with one vear of experience in a medical setting, are employed to relieve Public Health Nurses of functions not requiring professional knowledge and skills. Some assistants are Licensed Practical Nurses who want the regular working hours in the Health Department and who prefer public health work to bedside nursing.

There are 600 assistants serving in the city's public schools and health stations. They register patients, schedule appointments, record laboratory and medical reports, clean and sterilize instruments and trays, assist in the preparation of patients for examination, assist the physically handicaped and provide escort services when needed.

These paraprofessional employees of the New York City Department of Health are predominantly black and Puerto Rican household heads from poverty areas. They are capable workers whose insights into community problems are an asset to the health stations. They have had no promotional opportunities except through the Civil Service clerical examinations. Success in these effectively removes them from the public health nursing field.

Most assistants want to stay in nursing--more than 56 percent expressed interest in participating in an upgrading program. But most also have families and cannot afford to quit work to go to school. About 20 of the 600 PHAs attended evening courses in 1970. Only one or two of the city's nursing schools offer evening courses, and these place heavy scheduling burdens on family heads.

The field of public health nursing seemed to offer an excellent opportunity for model development: There are acute shortages at the professional leve; there is a large group of paraprofessionals employed with no opportunity for reaching the professional level; and there are several ways to obtain the professional credential.

B. Development of the Model

In November 1970, we met with officials of the New York City Health Department. They were ready to consider collaboration with NCEY for career development in several occupational areas. After four months of consultation and an examination of personnel requirements, promotional practices, credentials, and career-ladder planning, the first choice of both the Health Department and NCEY was public health nursing.

At this point there was a freeze on hiring and the Health Department could not replace Public Health Nurses and Junior Public Health Nurses lost through attrition. The freeze, however, did not affect upgrading employees to higher level positions.

Before making its decision, NCEY consulted with New York State licensure officials and National League for Nursing staff. They encouraged and referred us to recent policy statements urging greater recognition of students' prior education and experience. Both agencies offered names of local nursing educators who would be receptive to our model.

The Dean of Hunter College School of Nursing agreed to help NCEY establish a coalition of representatives of the Health Department, the union representing the assistants, the city's Health and Hospitals Corporation, the New York City Personnel Department, and the nursing departments of several CUNY colleges.

The coalition's investigations and discussions resulted in:

--An agreement that an articulated program from Public Health Assistant to Junior Public Health Nurse to Public Health Nurse was both desirable and feasible.

--A commitment from the Health Department to establish a special training center for the project.

--Determination that assistants wanted to participate in an upgrading program.

--A commitment from the Health and Hospitals Corporation to make available its facilities for in-hospital clinical experience.

--A commitment from the union to help with the funding.

What appeared to be a major hurdle, the fear that state licensure officials would not approve a work-study model as an alternative to existing routes to credentials, was overcome. A follow-up meeting of coalition representatives with the Secretary of the State Board of Examiners for Nursing established that this would not be reason to disapprove a program which met state standards for educational content and instructional quality.

As a direct result of the coaliton's work, an agreement between NCEY and the Health Department was reached. The Health Department and NCEY agreed to:

--Develop and establish a program to provide career progression from Public Health Assistant to Public Health Nurse, while employees remain on Health Department payroll at full salary.

--Develop a work-study model for training Public Health Assistants, based on the knowledge and skills required to perform competently at higher levels, to permit Public Health Assistants to assume responsibilities and gain experience which could be credited in the educational program.

--Obtain an academic collaborator willing to establish a nursingprogram which would credit knowledge and skills, combine academic instruction and practice, credit work experience, and use qualified members of the Health Department's staff as clinical instructors.

The Health Department undertook an analysis of public health nursing tasks in four health districts which encompassed prototypes of all programs and populations served by its Bureau of Public Health Nursing. The analysis was conducted by the Bureau's Associate Director assisted by an experienced consultant. NCEY paid consultant costs of the task analysis.

The objectives of the analysis were to identify duties performed at each level and the skills required to perform these duties, and to reallocate duties to maximize utilization of skills.

A committee consisting of supervisors, Public Health Nurses, Junior Public Health Nurses and Public Health Assistants in the four districts was organized to oversee the job analysis.

Selected staff in each district were asked to maintain logs of their activities in one calendar week; lists of tasks they performed were compiled from these records. New job descriptions were completed for each level, but redistribution of tasks was held up as problems emerged with obtaining an academic collaborator.

The coalition decided that we should seek a two-stage college program: the first stage, an associate degree; and the second stage, an articulated baccalaureate degree. Completion of the first stage would permit students to take the State examination for Registered Nurse. If successful, they would move from Public Health Assistant to Junior Public Health Nurse. On completion of the second stage, students would move to Public Health Nurse.

With the help and advice of the coalition, we concentrated our efforts on units of City University of New York. This decision was made because of lower costs at a CUNY college and easier transferability of credits between two- and four-year colleges. However, CUNY's open-enrollment policy*, adopted in 1970, overtaxed its colleges' nursing education capacities and decreased their ability to support new adult programs. Sharp cuts in City and State higher-education budgets made the fiscal situation even worse.

Our search for a two-year college consumed over 15 months. We were well along toward agreement with one college when, in June 1971, the head of its nursing department decided that problems including student unrest, difficulties caused by the influx of new students, and demands on department staff to strengthen existing curricula, were too great to take on further responsibilities.

Negotiations were undertaken with an institution about to launch a nursing program. It had the advantage that it was the only school authorized by CUNY to offer both two- and four-year courses. Despite the college's interest, negotiations were broken off because it did not have a nursing director on staff; there was a substantial backlog on the nursing waiting list; and the faculty wanted to use an already designed curriculum.

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*Open enrollment entitles anyone who graduates from a city high school to enroll the following year in a CUNY college.

Another CUNY community college was interested, but a change of presidents and nursing personnel changes, prevented NCEY from negotiating with the college until January 1972, when the college employed a director for its nursing program. A written commitment was obtained in March, 1972.

We approached three CUNY senior colleges and two private senior colleges. Interest was expressed by all five but all had problems which prevented us from concluding negotiations. Among the problems were: funding, administrative turnover, curriculum demands with higher priorities, and resistance on the part of some faculty members to involvement in new programs and approaches.

C. Funding

With the help of the coalition, a formal proposal was prepared and submitted on January 15, 1972, to the National Institutes of Health, Bureau of Health Manpower Education, Division of Nursing, for a five-year special project grant in the amount of $1,250,972. Formal commitment from the community college was not obtained in time to include in our proposal.

In mid-June 1972, we were notified that the application had not been approved. The lack of academic collaborators was the main reason; the grant review committee would not recommend the project without a specific commit from nursing schools.

We were advised to resubmit the proposal for the October 15 review date, if we had obtained academic collaborators. July and August were devoted to attempting to identify a senior college collaborator, without success. In September, the community college informed us that it would be unable to keep its commitment because more than half the nursing faculty resigned. In consultation with Health Department officials, we tried to find another college collaborator, but were unsuccessful.

D. Conclusion

At this time, colleges are graduating nurses who cannot get jobs. While the Health Department's need for nurses is as severe as ever, it cannot hire the new graduates. The nursing schools, overcrowded and with long applicant waiting lists, and unable to place their graduates in jobs are loath to enter into special programs. In addition, many of the nursing programs in community colleges are so new that their staffs are cautious about trying new approaches.

Reluctantly, we were forced to forego further developmental work on the nursing model.

Shortages in an occupation are not enough to assure acceptance of new training approaches. Our error was in not obtaining commitment from a nursing school before developing the model. We should not have proceeded after gaining Health Department collaboration until a college collaborator had been secured. We were seduced by our own success in other projects and our desire to submit a proposal in time to meet the funding agency's deadline.

CHAPTER VII

OBSERVATIONS, CONCLUSIONS, RECOMMENDATIONS

A. Introduction

NCEY's early study* indicated that it was socially profitable to employ poor people with little formal education in human service areas if: The roles were well-defined; good supervision and on-the-job training were provided, and there was formal in-service training. The study also made clear that while many paraprofessionals have the ability and the ambition to move into higher level positions, credentials and educational requirements close these to the vast majority. The report noted:

> A new generation of demonstration projects addressed to ways of upgrading paraprofessionals is urgently needed. The values of employing them have been amply demonstrated. What is timely now is to experiment with various approaches--field by field--for achieving career advancement. Tested out should be a variety of experiences after paraprofessionals have been hired, including experiments in changes in agency structures and policies, job design and assignments and in-service training.**

This project was designed to develop and test ways of overcoming barriers to advancement. The objective of the project was to develop and conduct (with an employee, employer, educational institution consortium) five programs to move paraprofessionals to higher level technical and professional jobs.

A number of approaches and strategies were considered and attempted:

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*National Committee on Employment of Youth, Where Do We Go From Here? (NCEY: New York, December 1969).

**Ibid., p. 11-7

1. Reduce or change the requirements required for credentials.
2. Change the allocation of educational resources to provide more resources for employed adults who want to advance in a work-related career.
3. Develop work-study models for employed adults.
4. Define intermediate positions between the paraprofessionals and the professional which would be stepping stones toward the professional position.
5. Identify a broad area of education for human services careers to encourage transferability of experience from one human service class of positions to another.
6. Gain employer support for programs to help paraprofessionals move upward.
7. Make it possible for fully employed adults to obtain career education and to advance to higher positions at an acceptable cost to them, their employers, and the educational institutions.

We considered trying to eliminate credentials in certain occupations, but the resources available to us and the difficulty of such an enterprise kept us from making any serious attempts.

Twenty-five human service occupations were considered. Five occupations were selected on the basis of: employer commitment; paraprofessional populations; potential for upward movement; commitment of educational institutions; acceptance of our ojectives.

B. Summary of our Experiences in the Five Occupations Selected

With three projects funded and operational--a fourth soon to become operational, and a fifth dropped--this phase of the program is a success. New routes to credentials have been identified; new procedures for training, educating, and upgrading paraprofessionals have been accepted; and new models have attracted operational funding. Important institutional barriers have been reduced; attitudes and expectations of individuals and institutions have been altered; and a base has been created for institutionalizing and replicating the design.

Each occupational model has been described in detail: the failures, delays, specific barriers, and degree of success achieved. We shall now compare obstacles, problems, and general program elements.

The chart on the following page gives the major characteristics of each model.

Labor Market Information

There is a lack of precise labor market information and data related to current and future manpower needs in human service occupations. Much time was spent in obtaining outdated and erroneous information. Estimates of needs and trends seem to be based on wishful thinking and educated guesses of "experts" rather than on empirical data. Information is better on a national, long-range basis than in terms of short-range needs. However, crucial factors affecting a program's success are generally short-range and local. Poor linkages between employers, academic institutions, and workers cause some training resources to be underutilized, and others to be insufficient. Educational institutions seem to be unable to react to immediate or long-range needs of employers and workers.

Mobility

In addiction services, there is vertical but little horizontal mobility. In the other occupations there is some horizontal but little vertical mobility.

With the new models, there will be vertical mobility; that is, opportunities to move from paraprofessional to professional levels: (a) in occupational therapy, from aide, to certified occupational therapy assistant, to registered occupational therapist; (b) in child development, from aide to child development associate, to head teacher, and ultimately to educational director or administrator; (c) in teaching, from classroom aide to teacher, to master teacher; (d) in addiction services, from paraprofessional to administrative positions in their own or other drug abuse and mental health agencies.

TABLE I

CHARACTERISTICS OF THE MODEL

	Operational Models			Developing Model	Dropped Model
Characteristics	Addiction Services	Child Development	Occupational Therapy	Classroom Teaching	Public Health Nursing
Major Field	Mental Health	Education	Health and Mental Health	Education	Health
Public Agencies	0	0	4	1	1
Private Agencies	7	9	0	0	0
2 yr. College	Yes	Yes	Yes	No	Yes
4 yr. College	Yes	Yes	Yes	Yes	Yes
Degrees	A.A.,B.A. or B.S.	A.A. B.S.	A.A. B.S.	B.S	A.A. B.S.
Other Credentials	0	C.D.A.* H.T.	C.O.T.A.* O.T.R.*	Teaching	R.N.*
Length of Programs	3 years	3-4 years	5 years	5 years	--
# Training Cycles	1	1	5	3	--
# paraprofessionals	30	32	80	90	--
# preceptors	7	9	4	15	--
Others trained	0	22 interns	0	15 preceptors	--
Civil Service	No	No	Yes	Yes	Yes
Union	No	Yes	Yes	Yes	Yes
Prof. Assn.	No	No	Yes	No	Yes
Policy Board	Yes	Yes	Yes	Yes	--
Defined Career Ladder	No	Yes	Yes	Yes	Yes
Completed Task Analysis	Yes	Yes	Yes	No	Yes
Developed Curriculum	Yes	Yes	Yes	No	No
Designed Evaluation	Yes	Yes	Yes	Yes	No

*CDA=Child Development Associate; HT=Head Teacher
CORA=Certified Occupational Therapy Assistant;
OTR=Registered Occupational Therapist; RN=Registered Nurse

Job Structuring

It was assumed by people who developed paraprofessional programs that the mere presence of large numbers of paraprofessionals would introduce changes in promotional policies. This assumption was not justified and paraprofessionals are paying for the error. Two main obstacles were ignored. The first is that employers' commitments to train and upgrade paraprofessionals are limited by their budget and service needs and their willingness to contribute workers' time, skilled supervision, facilities, supplies and other resources for these purposes. The second is absence of job standards for human service occupations. This is a barrier to horizontal mobility and to gaining acceptance of work-experience for credentialling and college credit.

We attempted to deal with these problems by conducting task analysis in each occupation to identify common worker utilization and employment practices; to help employers structure more efficient and effective job patterns; and to construct generic curricula.

We were hindered in task analysis by the absence of systems information and systems analysis. Employers did not know, and were unable to determine, their manpower and service needs, standards for promotion and upgrading, and what education and training were desirable.

Employers should be able to measure the effectivenss of service in order to determine how best to utilize staff, structure jobs and set qualifications. Few agencies are willing, without outside pressures, to undertake this kind of self-analysis. In child development, the creation of a national credential is encouraging systems analysis. In occupational therapy, the professional association (AOTA) is attempting to restructure occupational therapists' roles. In addiction services, the agencies will try to use the task analysis results to bring about a degree of job uniformity among agencies. However, different treatment philosophies seem to preclude a generally applicable systems analysis and employment structure.

Job restructuring attempts founder when faced by problems of funding, vested interests, and lack of technical talent. These override considerations of service needs, skill utilization and worker mobility. Addiction services and child development get government funding on a short-term, incremental basis--radical changes, which have to be approved by funding agencies, could invite disaster. Occupational therapy and teaching jobs are budgeted, classified and imbedded in a rigid civil service system. Present employees, unions and civil service and budget bureaucrats have a continuing interest in preventing change.

While there has been a great deal of talk about competency-based credentials, there has been little action. Three of our models use competency-based education and thus relate to competency-based credentialling. They are the child development, occupational therapy and teacher projects.

Our work in the child development area resulted in NCEY being given a contract by the CDA Consortium to develop an instrument to measure classroom behavior. We used our task analysis of child development work as the basis for identifying necessary competencies and competency levels. In teaching, the New York State Department of Education is moving toward development of a competency-based credential parallel to the traditional educational credential. Our teaching model will be one of the first programs to test this approach. AOTA has a funded project to develop behavior-based proficiency measur Our project will be used as one of the testing grounds.

The Collaborative Approach

Early in the project we recognized the importance of involving more than one employer. A major change in administration, policy, or budget in one institution is not likely to destroy the model. In addiction services, for example, we originally reached agreement with a single large agency, and then based all our efforts and energies for a long period of time working out a viable arrangement. When internal difficulties forced this agency to withdraw, we had to abandon much of our work and seek another collaborator. We interested a loosely federated group of voluntary agencies. No single agency can destroy the model by dropping out of the consortium. Agencies tend to serve as a pressure group to keep individual participants together, offering encouragement and assistance when internal agency problems arise. Further, no single agency needs to involve its entire paraprofessional staff in training; services can continue to be offered without too much strain on remaining staff; evaluation is sounder, and there is a better basis for replication.

In some cases it is desirable that trainees be given opportunities in a variety of settings. This is the case in the occupational therapy project where there is need to gain experience with different treatment modalities and populations.

The community college has proved to be an important educational resource in all our models except teaching. Even where a baccalaureate degree is necessary, it is possible to tie together the two levels of academia profitably. Traditional four-year colleges usually require a preliminary period of up to two years devoted to "required" courses prior to education in a specific field. In our models, the student is engaged in both required courses and in technical occupational courses at an early stage.

Linking colleges and employers is not easy. Problems arise when it is necessary to satisfy at the same time employers' needs to deliver services and colleges' budgetary limitations and faculty rules. All partners in a collaborative venture are not equally willing, resourceful or capable. A key NCEY role was to make up collaborators' deficiencies.

It is difficult for an employer or college to keep a group of participating agencies continuously informed of all their activities which might affect the program. NCEY served as the communications and catalytic agent to obtain articulation. The importance of these roles in making a collaborative enterprise successful cannot be overemphasized.

Developing and maintaining effective collaborative relationships among employers, colleges, unions, and others involves difficult continuing negotiations, a willingness to compromise on key issues, and the ability to adapt to changing conditions. The parties have to enter into complicated, highly interdependent relationships. The need to consider other institutions, e.g., Civil Service and licensing bodies, multiply problems considerably.

The collaborators were sometimes troubled by the degree of their involvement and the number of meetings, conferences, and other contacts required for planning and implementing models. However, NCEY pushed for involvement of all agencies as we feel that only by full participation and collaboration can a program be viable. In the process, there was considerable interchange of ideas, knowledge, and theory which was beneficial to all.

Collaboration included:

1. Joint establishment of operating goals;
2. Determinations based on publicly shared data;
3. Relationships growing out of concrete, here-and-now encounters;

4. Voluntary relationships between change agents and clients, with parties accepting responsibilities toward each other but free to terminate the relationship after consultation;

5. Power distribution in which the clients and change agents have opportunities to influence each other and the program;

6. Emphasis on methodology rather than goals.*

The Policy Boards

Once funding was obtained, each collaborating institution designated a representative to serve on a Policy Board to oversee operations. The Policy Board is the key link between NCEY staff and the agencies and individuals involved in the venture. It serves as policy maker, communications instrument, testing ground, problem-solving forum, setting for articulation and resolution of grievances, and a discussion group to clarify and develop new objectives. Each institution, agency or individual involved in any way with a project including trainees and NCEY, is represented on the board and is entitled to one vote in all decisions. NCEY sought no special power on the Policy Boards. We did this to insure that the overall design would be followed after the pilot period; to be free to monitor and evaluate the programs; to insure our technical assistance would be accepted; and to be able to work for replication and institutionalization.

Academic Institutions

The major obstacle to career advancement in human service occupations is the requirement of academic degrees for high level jobs, and the unwillingness of college faculties to try new approaches to meet the needs of employers and employed students. Even where there is agreement in principle, diffusion of power within colleges makes obtaining specific agreements from college presidents, provosts, administrators, department chairmen, academic committees, and faculty almost impossible.

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*Warren G. Bennis, Kenneth D. Benne, and Robert Chin, Eds., The Planning of Change (Hall, Rinehart and Winston; New York), 2nd edition, p. 147.

In many cases where we obtained the cooperation of departments concerned with technical disciplines, e.g., mental health and occupational therapy, we were not successful with gaining cooperation from liberal art departments.

Occupational and vocational education tends to have lower priorities for college faculties even in those schools whose primary purpose is the operation of such programs. These programs are seen as less prestigious than liberal arts and science programs.

It is difficult to achieve change in an institution where power is diffuse and where a veto over decision making is in the hands of people who will get no need satisfaction from the proposed change.

Failure to effect scheduling of courses, hours in which they are given, manner in which they are taught, and similar factors has a crucial effect on program success and institutionalization.

Few colleges are willing to consider the question of how much formal education is relevant to the jobs paraprofessionals would eventually be eligible for. From the viewpoint of most college faculties, job competency is less important than having the prescribed academic background and credential.

Our limited resources and influence did not permit us to solve these problems in the development of our models. However, they must be considered if upward mobility and an effective work force are national goals.

Our academic collaborators made some changes in course offerings and scheduling, but nowhere near the changes we believed desirable. Employers were more willing than colleges to make changes.

Colleges are handicapped in their inability to commit resources to new programs by budget stringencies and demands of regular programs. For example, we reached agreements in principle to conduct the nursing program with three different colleges only to find that these conditions prevented them from setting up programs.

Adherence to fixed semesters, scheduling and sequencing of courses, and prerequisites wastes resources, restricts trainees who learn more rapidly, and puts an undue burden on employers.

For example, the insistence that three-credit courses be given one hour a day, three days a week, means releasing employees three days a week.

Working out articulation agreements between community and senior college programs was difficult but less difficult than obtaining scheduling changes. There is genuine willingness by some senior colleges to work with junior colleges to permit acceptance of work completed at the associate degree level. The involvement of senior colleges in planning and task analysis was important for gaining this cooperation.

Other Agencies

Early involvement of unions, professional associations, civil service agencies, credentialling bodies, and other groups in the development and design of a model is key to successful implementation. In each case, we found interest and willingness to participate to some degree. In the occupational therapy model: The American Occupational Therapy Association provides considerable free consultant time, the union representatives (CSEA) participate in the selection of trainees, and the State Departments of Health and Mental Hygiene participate along with the employing institutions. In Addiction Services: the New York City Addiction Services Agency worked closely with us. In the child development model: New York City's Agency for Child Development and the New York State Department of Education play key roles. The teaching model includes relationships with New York City's teachers union (UFT), CUNY, and the New York State Department of Education. In the public health nursing model, the National League for Nursing and the New York State Licensure Board for Nursing gave us some help.

Task Analysis*

Educational programs are usually designed to meet the standards set by professional groups, educators, and accrediting associations, rather than the needs of the job, the employee, or the employer. The focus is on an "education" rather than a

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*Sources from which NCEY developed its task analysis methodoligies include the work of Eleanor Gilpatrick (Health Services Mobility Study), Sidney Fine and Wretha Wiley (Upjohn Institute for Employment Research), and the U.S. Department of Labor (Dictionary of Occupational Titles and A Handbook for Job Restructuring).

"work" model. Functional task analysis to determine the relationships between tasks and system outcomes pinpoints this situation clearly.

NCEY uses task analysis in each of its models. A different method is used in each depending on the nature of the occupation, the work site, the availability of trained analysts and other resources, and the specific objectives of the analysis. In general our objectives are to identify tasks, develop training curricula, determine performance standards, restructure jobs, develop career pathways, change institutional requirements and standards, etc. Each task analysis stressed one or more major objectives. In addiction services, to develop a career ladder. In child development, for developing a new curriculum. In occupational therapy, it was to develop a curriculum reflecting changing roles of professionals and paraprofessionals. In public health nursing, it was to help modify clinical nursing education to give greater emphasis to community care. In teaching, it will be used to validate definitions of teacher roles, measure role changes, and may form the basis for the state-mandated competency-based credential.

Curriculum Development

The task analysis in each program was a factor in curriculum design. The academic institutions initially saw curriculum as their sole responsibility and resisted involvement of employing agencies. Many diverse and diversionary issues were raised including: cost of changing curricular and teaching approaches; the importance of tradition; the superior knowledge, experience, and responsibility of the faculty; educational standards; pre-existing course content and requirements which could not be changed; college curriculum committees which met only twice a year; and even academic freedom! Employing agencies tended to see the program primarily as a means to meet their training and operational needs.

As noted earlier, it was easier to obtain curriculum change in technical departments such as occupational therapy, mental health and child development, than in liberal arts departments such as English, psychology, and mathematics.

In a few cases, we obtained needed changes. At LaGuardia Community College, the science department is revising its core course for the child development program, and for addiction services is including in a human biology course the effects of drugs on different systems and organs. In the teaching model, Baruch's social sciences department will offer a course for teachers in working with parents and communities.

There has been a failure to identify common knowledge and skills that all human service workers need. Each occupation tends to develop its own requirements and its own approach to human behavior, making transferability of skills and horizontal mobility more difficult. We are encouraging an inter-occupational, inter-disciplinary core area to help workers move from one occupation to another with maximum transferability of credits, such as the mental health core for addiction workers which can lead to a host of occupations. We have been only partially successful in getting colleges to modify their courses of study; usually employers and workers make the concessions. However, the task analyses were important in getting the colleges to consider curriculum changes.

Preceptors

A key element in the work-study model is the early identification and involvement of competent, dedicated work supervisors to serve as preceptors and adjunct faculty. These supervisors become the trainees' teachers, mentors, and role models, and the link between the colleges and the work sites--between theory and practice. To help them in these roles, each model has a "training the trainers" component which includes formal training sessions, workshops, and seminars focusing on paraprofessional and professional roles, supervisory and training techniques, relationships between theory [illegible] practice, and program evaluation. We have tried to provide incentives for preceptors by arranging for adjunct or consultant status at the colleges, additional pay (addiction services and child development), and graduate credit (occupational therapy and teaching).

Funding and Scheduling

Meeting funding agencies' schedules and deadlines was a serious problem which led in some cases to proposals being submitted before we had full agreement of all collaborators. It also led to delays as these schedules had to be meshed with those of the collaborators which were different.

A July 1st funding date and a mid-September date for the start of the academic year results in considerable loss of time as the summer is the wrong time of year to recruit staff, develop detailed curricula, select trainees, etc.

In some high-cost projects, such as teaching, joint funding by several sources would make them viable. However, there is little willingness on the part of funding agencies to share the costs of a single program. Joint funding brings its own problems in terms of overlapping responsibility (and credit), multiple forms and reporting requirements, and divided allegiance.

Credentialling

We shall only discuss aspects of credentialling related to our program design. Credential, for our purpose, refers to any license, certificate, form of registration, or academic degree required for working in an occupation.

While the major objective of credentialling is to protect the public, credentialling regulations generally follow professional guidelines not service requirements. The quality of service and utilization of workers in "helping" professions are largely determined by educational standards rather than by service needs and worker competencies. It is generally agreed that many professional tasks could be performed by persons with less formal education than that required of professionals.

Credentials create: (1) irrelevant demands - the difference between what certifiers require and what employers and the jobs demand; (2) overly specific demands - ruling out alternative ways of developing competence; (3) too early demands - making it difficult for people to bloom late, to reconsider their interests, to experiment with different kinds of experiences, "to delight in mobility."*

Efforts to reduce the adverse effects of credentialism have focused on the following: (1) increasing the number of workers with needed skills; (2) reducing discrimination; (3) reducing the emphasis on formal education; (4) increasing the employer's role in determining who will do what on the job; (5) making greater career mobility possible for adults and people with little formal education; and (6) job restructuring to increase the number of jobs which do not require high education requirements.

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*S.M. Miller, Towards More Development and Less Credentialling: Some Notes, OECD Discussions on Educational Credentials (Paris, November 1973), mimeo., p.1.

We considered the following strategies:

1. To eliminate credentials entirely
2. To adapt existing credentials to fit new roles.
3. To reduce requirements for credentials.
4. To develop new credentials.
5. To develop new routes to existing credentials.

Eliminating credentials, adapting credentials to fit new roles, and reducing requirements were beyond our capabilities and resources. Each called for far more power than we had to influence professions, regulatory bodies, legislatures, and employers. Further, paraprofessionals we interviewed indicated that they wanted the same credentials that others in the field had, not something different, and certainly not nothing at all. Our efforts, therefore, were channeled to developing new credentials and new routes to existing credentials.

In addiction services, where there are a multiplicity of academic disciplines and credentials including social work (MSW), psychology (Ph.D.), psychiatry (M.D.), our aim was to develop a meaningful intermediate generalist credential in mental health at the associate degree level.

In child development, where the only existing credential is at the master's level, a new competency-based credential--Child Development Associate--is being proposed by the Federal Office of Child Development, we accepted as our immediate objective preparing workers for that credential. In occupational therapy, teaching, and public health nursing, our efforts went into developing new routes to existing credentials.

C. Elements in Establishing a Career Upgrading Model

Some factors which we found to be important in establishing our programs are described below. They are not meant to be fixed steps to be followed sequentially, nor are they equally important for all programs.

1. As soon as possible, establish a general planning body with representation from the principal forces involved in the program. Add others as they are identified. Orient participants thoroughly and reorient regularly. Promote discussion on all issues related to the program. Establish effective communications systems and procedures for setting priorities.

2. With respect to each occupation under consideration determine: work force needs, entrance requirements, and training resources.

3. Identify systems which have a large number of workers who have little:

   a. Vertical mobility. This usually results from the imposition of requirements for higher jobs, (e.g., credentials, education, and experience), which the lower level workers do not have and find impossible to obtain.

   b. Diagonal or inter-organizational mobility. Common causes are: absence of any generally accepted way of evaluating the transferability of worker competence to another setting; extreme task specialization and concentration on specific job-related competencies; and the initial selection of workers from an "unemployable" group, e.g., former addicts.

4. Identify systems which have a substantial number of higher level (in terms of salary, skills, status, promotional opportunities, etc.) positions which are unfilled, filled by recruiting from outside of the organization, or are filled by persons from unrelated fields.

5. Identify barriers and supports related to establishing a linkage between the lower-level worker group and the higher-level positions. The workers in the lower-level positions may be paraprofessionals, assisting and working with higher level technicians and professionals, performing directly related independent work which calls for less education and skills--or working with the same client group performing functions or providing services in a different area. Granting credit for experience and the ability to use the work-place as an integral element of the mobility program depend on the closeness and strength of this linkage between the systems with the workers and the systems with the jobs.

6. The mutual interest between the workers' system and the system with the higher level jobs should be determined and strengthened. If the systems are the same (i.e., the system has both a group of workers with little or no vertical or diagonal mobility and a number of unfilled higher level jobs) program development problems are easier to resolve. Officials must be motivated to explore the feasibility of linking the problems of "dead-ended" workers and of unfilled higher level jobs, and attempting to solve both problems at the same time. As a rule, the amount of effort involved in establishing a linkage decreases--and the probability of success increases --with the strength of other relationships between the two systems. Recognition that a mobility program would satisfy both needs does not

insure that a program to improve career opportunities will be successful, or even that one can be established. However, it is a necessary condition which must be met. The success of every program depends on the existence of "real" jobs and the willingness and ability of the receiving system (the ultimate employer) to accept the output (qualified workers) of the program. The establishment of the mututal interest linkage is a necessary precondition.

7. Job restructuring may be required to provide appropriate tasks for the upgraded workers. Persons most directly affected by these changes should be consulted in the planning of change, otherwise, resistance by existing staff may overwhelm the effort to upgrade.

8. As no single employer may have a sufficient number of paraprofessionals, adequate resources, or sufficient openings to ings to support a program, it may be necessary to organize an employer consortium. An employer consortium may be a source of great strength. In our programs it has led to greater employer participation and helped bring into the open employer reactions to program costs and the elements which would have made institutionalization and replication impossible. It is most desirable for employers in a consortium to have the same policies with respect to released time,etc. If uniformity cannot be achieved, it may be desirable to change the members of the consortium to get uniformity.

9. Relationships and program linkages with academic institutions should be developed as early as possible to allow for maximum participation by the institutions in the planning and developmental stages, and for as much time as possible for the resolution of problems which will inevitably arise. More difficulties can be expected with getting educational institutions to change than with the employing systems, workers, unions, or most professional groups. Difficulties increase exponentially with the number of educational linkages required. For example, if the program calls for agreement between a two-year college and a four-year college--in which the latter will give full credit for work at the former and agrees not to repeat course content or program elements--the difficulties are multiplied. In general, it seems to be easier to set up an innovative program with private colleges than with public colleges. However, it is harder, working with private colleges, to institutionalize a program, which will continue and grow after the completion of the trial period.

10. Relationships and program linkages should be established with: (a) unions and professional groups which represent workers in the lower-level jobs and in the higher level

jobs; (b) managers who would be directly involved or significantly affected by the program; (c) in public programs, the Civil Service Commission and other governmental agencies which could affect success of the program; and, (d) if an existing credential is involved, the credentialing agency. Programs to change established employment patterns are threatening to many groups, particularly if they don't know much about the program except that it will introduce change. In some cases, once the nature of the proposed program is understood, these groups become allies and sources of information and program resources. It is important to establish a positive link with every group which would be affacted by--or which could affect--the program to a significant degree.

11. A coordinating committee should be established as soon as sufficient interest is developed. The committee should include representatives of groups or systems which could play major roles in providing input to the program, in conducting the program, in using the output of the program, and in evaluating the program. Often, the composition of this committee will be the same as that of the planning group.

We have found that there is a crucial role in the coordinating committee for an organization which has no stake in a specific input, (e.g. released time); or in a specific output, (e.g.,filling vacant jobs and getting a better job); but which has the same stake in all of these and an overriding concern with the success of the total program, rather than with the achievement of a single sub-goal. (This has been, in general, the role played by NCEY.) In addition to coordination, the role played by the coordinating committee should be an energizing, searching, stablizing and guiding role. (This is also the role initially played by NCEY.) If the committee played its role perfectly, there would be no need for an organization such as NCEY to be involved once the major participants were brought together, agreed on a program, and worked through a pilot period.

12. Task analysis is a useful tool for relating the objectives and program activities of the two employing systems, the past and future work experience of the workers, the educational curriculum, selection of program participants, and program evaluation. The task analysis may point to answers to related problems, e.g., the job of redesign in one of the systems to improve its effectiveness.

There are many systems of task analysis, and the particular approach selected dependsupon the resources available, the kind of information required, and the objectives. We combined several approaches in order to stress:

a. Service to be provided by the system
b. Need satisfaction of the employer
c. Use of nonprofessional tasks as training stepping stones to professional competence
d. Linkage between school and work
e. Academic credits for work
f. Nature of supervision
g. Intermediate job levels between paraprofessional and professional levels.

13. Developing alternative routes for advancement is the heart of the planning process. This is primarily a responsibility of the coordinating committee. However, the staff work may best be done by an agency such as NCEY, which does not stand to gain or lose by the selection of any one route. The analysis should consider the effect and cost of changing such variables as minimum educational requirements, credentials, job sequence, work assignments, curriculum, teaching staff, supervision, Civil Service selection and job design.

14. The curriculum should not be determined solely by the college teaching staff. It should be developed by the college, the professional organization, the workers, and the employing systems in cooperative discussion and negotiation. The objectives should be to: provide the broad functional competence which is the concern of the educators, the specific competence to do the job and to be productive during the learning period, which is the concern of the employers, the professional standing which is the concern of the professional organizations, and minimize the cost of time and effort, which is the concern of the worker. The colleges tend to have veto power as they are ultimately responsible for accrediting the curriculum.

The curriculum should specify: the content and focus of each course, including the in-service training components; the teaching methods to be used; and the selection and utilization of academic and practicum faculty. It should also recognize trainees' characteristics and prior skills and knowledge.

15. Released time has been considered a necessary condition for employed adults to complete a demanding educational program in a relatively short time. While some released time is important, over-emphasis is a major obstacle to instituting and institutionalizing a program. Few employers are willing to underwrite career advancement programs which require significant amounts of released time. In addition to the cost of released time, there are other counter-

productive consequences. Some are; lowered morale of employees who are not selected for the program, but who have to carry out the work left undone by the workers in the program; resistance on the part of consumer representatives, who see the consumer as the one who pays for the released time; disruption of normal work processes; reduced management responsibility; a lesser commitment on the part of participants to the achievement of work goals; and, in some cases, lowered rather than higher performance standards. Not only is the amount of released time crucial, but when the released time is taken is also important. Unless the educational institutions change their course offerings and make special arrangements, it is possible that workers will be going to school for substantial parts of each working day. Time may be required for supervised in-service practicum and regular course work.

Significant released time requirements make intersystem programs impossible unless an outside source pays for the cost of this time. Sometimes the released time burden can be reduced by replacing "released" workers with students or interns. It is important for colleges to minimize disruption in the employing agencies.

16. College credit for work knowledge and experience shortens the time needed to complete the program, reduces the costs, ties school and work together more effectively, and motivates workers. While college rules may prohibit more than nominal credit without examination, there are a number of ways to provide additional credit. One is to include supervised work application of classroom teaching as an element of the formal educational sequence. A second is to accredit in-service training. A third is to credit tested work competency. Credits earned in these ways should be transferable to other academic institutions.

17. Provisions for supportive services are needed if an employed adult is to successfully complete an accelerated program, particularly if the adult has family responsibilities, has not attended school for some time, and had an unsatisfactory school experience. The nature, range, and intensity of these services should be based upon the specific worker population and the demands of the specific program not on general assumptions. Agency and school have a common responsibility to provide the student with supportive services. The agency can provide counseling and assistance on job-related and career problems. The college can furnish educational guidance and counseling focused on improving the student's learning. Personal counseling and other supportive services can be

provided by community agencies. Persons deemed unable to complete the program even with the help of supportive services, should not be admitted.

18. Trainees' contributions of time and effort cannot be considered as merely "icing on the cake"--a minor supplement to the employer's contribution. It must be a major contribution complementing the contributions of the employer, the educational institution, and other supporters of the program. An employee's contribution is a measure of commitment and will to successfully complete the program. The employee must not only master the academic content of the program, but must continue to perform regular job duties at an acceptable level.

19. Capable job supervisors are important for assuring worthwhile work experience, linking classroom theory and workplace reality, and easing problems related to special program needs. They must be kept informed of the educational program, be willing and able to adjust work assignments, and be permitted to suggest changes in classroom content and approach. Supervisors who are also adjunct faculty of the educational institution are in the best organizational positions to effect the linkage. Regular orientation and training sessions should be held jointly with work supervisors and college faculty.

20. Trainees should be kept together as a group for parts of the program in order to develop group support of the program and peer learning. Classroom facilities, equipment and library resources, made available at the work site as well as at the college can help. It is equally important that trainees be exposed to regular college students and people in other programs to broaden their perspectives. A responsible balance should be struck between these elements.

21. Evaluation should be built in from the beginning. Program design may have to be changed to make meaningful evaluation possible. After commitments are made, it may not be possible to change the program. Sometimes there is the difficult choice between a successful program and a thorough evaluation. It is important to recognize this and make the difficult decision involved. Ignoring the issue may result in an unsuccessful program and useless evaluation. Evaluation should provide feedback for improvement of curriculum and work methods in addition to providing data for measuring the success of the program.

22. The need satisfaction of every individual and agency involved must be considered and met. To the degree that they are not (recognizing that meeting the need satisfaction of one

participant may make it impossible to meet that of another), the program will have difficulties. These difficulties may not appear during the initial stages of the program, but are sure to emerge when the effort is made to institutionalize the process.

23. The cost of developing and conducting special programs is very high. The typical consortium of agencies and individuals cannot afford, under ordinary circumstances, to pay the developmental and evaluation costs. Other funding sources should be sought for these one-time costs. All parties share the responsibility for examining the costs of the program and deciding how to achieve a stable base of support. Where evidence exists that the program has a long-range potential and that the demand for training will continue, programs should be incorporated as rapidly as possible in their regular budgets. A key decision in planning is the relative priorities of cost and effectiveness. The decision to maximize effectiveness for a fixed cost or minimize cost for a fixed effectiveness can have great impact on the program. If a training/education strategy is to be successfully replicated or institutionalized, information about the cost and effectiveness should be available to the decision makers. A model which yields cost/effectiveness data gives program designers a base for judging alternative approaches.*

24. Factors affecting institutionalization when setting up pilot programs include: the ability of the employing organizations to absorb costs, e.g., release time and work disruption; the continued ability to employ higher level workers; the degree of "creaming" in the pilot program; the resentment of non-participating workers; the colleges' willingness to continue special course scheduling; and the identification of sources of needed funds.

25. Pilot programs must consider the problem of replication in the earliest planning stages; replication--rather than isolated success--is the major goal of a demonstration project. In developing our demonstration projects, we attempted to meet the following criteria which we suggest for such projects:

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*For a description of a good cost/effectiveness model, see Sue A. Haggart, Program Cost Analysis in Educational Planning; and M.L. Rapp, et al., Project R-3, San Jose, Calif: Evaluation of Results and Development of a Cost Model; both available from the Rand Corporation, Santa Monica, Calif.

a. The occupational data (number of jobs, projected job openings, educational resources, etc.) should indicate the existence of a widespread (possibly national) problem, rather than a local problem.

b. Other occupations should have relevant characteristics similar to those chosen for the demonstration projects.

c. There should be other populations of paraprofessionals, employers, and educational institutions with relevant characteristics similar to those in the demonstration project.

d. Data and experience obtained in the demonstration project should be helpful in reducing the cost of replication.

e. The cost of replication should require as little special funding as possible.

f. Regular reports issued during and at the end of the demonstration period should provide all information needed to enable interested organizations to modify and replicate the program.

D. Some Counter-Views with Respect to our Model*

Some arguments which have been presented in opposition to our program policies are the following:

1. The only worth-while strategies are those which seek to eliminate or reduce credential requirements, rather than to develop new credentials and new routes to existing credentials.

2. New credentials create new problems and add to existing problems.

3. Helping some minority people obtain credentials strengthens the positions of the advocates for credentialling.

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* Several of these views were suggested to us by S.M. Miller, op. cit.

4. Failure to build in assured success means that we are reaping a crop of double losers.

5. Only a few will have the opportunities to advance. Society should invest in developing all who want to advance.

6. Employers should pay the entire burden of released time. Workers cannot afford to attend college on their own time.

7. The focus on job-site training and experience and employers' needs dilutes the education received and limits worker mobility.

The following are in reply to these objections:

1. We do not believe that it is possible, or even desirable, to eliminate all credentials. Certainly not in terms of consumer protection. The trend for the past 100 years has been to increase the use of credentials, even in such skill areas as automobile repair. On the basis of our experience, we believe that the most that can be done is to reduce unnecessary high requirements for credentials. However, a head-on attack on this socially desirable and less difficult objective proved to be beyond our capabilities. Widespread reduction of requirements whether for credentials or for jobs would require action by the appropriate branches of government. We believe that our more limited goals will help to provide stability and employment for a large group of people who have neither at the present time.

2. As indicated, we do not believe that credentials are necessarily evil. The establishment of a credential to recognize a level of competence and to give job stability and mobility to a depressed group is not undesirable, e.g., the associate degree program to help people qualify for the child development associate credential is not a new barrier, particularly since the credential can be obtained on the basis of performance alone.

3. We recognize that once people get into higher level jobs they have a vested interest in retaining high requirements for their jobs. Our view is that the primary goal is getting higher level jobs for paraprofessions and others who are now barred from these

jobs by credentials and educational requirements. The additional support for credentials will not be a significant addition.

4. While some participants will indeed be unsuccessful (double losers), some will be successful. We believe that success in learning cannot be insured and that it is socially more desirable to risk failure than to fail to give losers a second chance.

5. Our response to this objection is similar to that for objection 4 above. We believe that there should be opportunities for all, but not necessarily the identical opportunities or in the same pilot program or at the same time.

6. An employer (public or private) cannot carry the full burden for released time. In any event, it will always be the consumer who pays. If released time is socially desirable then society as a whole should pay, not the consumer of specific services. In addition, we believe that these programs have a better chance of working and being replicated if the worker is required to make a significant contribution.

7. These are not general education programs. They are focused on helping a specific group of people move up in a specific occupation and relating work and education. Where the work experience is too narrow, we have tried to broaden the experience by rotation as in the occupational therapy program and by imbedding the specific experience in a broader educational field, as in the addiction services program.

E. General Conclusions and Recommendations

On the basis of our experience with the five programs described, we have reached a number of conclusions and are in a position to make general recommendations to organizations which undertake such programs:

1. The needs and potential of employed workers have been neglected in favor of the young and the unemployed. More programs are needed to provide opportunities for upgrading workers and encouraging them to continue training and education.

2. Our approach--the development of an integrated work-education-career system--is viable and can be utilized both in human service occupations and other than human service occupations.

3. Job shortages in an occupation are a necessary condition for a successful program. However, even severe shortages do not insure that upgrading programs will be accepted by employers, employees and others and that the program will be supported by a funding source. While meeting the need satisfactions of the paraprofessionals is the primary objective of these programs, the need satisfactions of others must be considered and met to a reasonable extent for programs to succeed.

4. An employer-college-employee consortium can carry only a few special upgrading programs at present without outside funding. More work should be done to reduce the costs of such programs and to include funds for them in national education efforts.

5. There is need for better and more accessible information on funding sources. The Federal government should encourage and simplify the conditions for multiple source funding. It might be more productive if funding agencies cooperated in offering joint funding, rather than forcing the applying agency to put together a funding consortium.

6. Human service occupations offer good opportunities for adults. Employers, unions and credentialling agencies should seek to restructure these occupations to establish several entry levels for adults with differing life and work experiences.

7. Credentialled workers are frequently unwilling to cooperate in programs to upgrade paraprofessionals as they feel their needs are not being met. Continuing development of credentialled workers is necessary to gain their support.

8. Poor articulation between two-and four-year academic programs makes advancement to the full credential from an intermediate credential difficult. Articulation should be built into the program.

9. Educators, in general, downgrade vocational programs. This is an obstacle in establishing and conducting work-study programs. Project staff must work with faculty members as well as administrators to overcome this problem.

10. Much more study is needed in evaluating work competencies and in determining the value of work for college credit. Task analysis is the most promising approach.

11. Vocational preparation for human service occupations can start at the high-school level if these programs are articulated with college programs. Development of a core curriculum for all human service occupations would encourage this without unduly restricting student career choices.

12. Employers who require academic credentials for career advancement should help their paraprofessional employees to attain these credentials.

13. Neither employers nor workers can afford two hours travel time to educational sites. Educational programs should be located at the work-site or close to the work-site and near mass transportation facilities.

14. Funding agencies should encourage more risk in pilot programs.

15. Competent neutral consultants to serve in the several roles played by NCEY in these projects may be essential in complex programs involving several independent agencies. The funding sources may well make the involvement of a "neutral" a requirement for funding complex programs.

16. Under the pressure of employed and credentialled groups, employment requirements tend to continually increase. There should be a mandated periodic government review of credentials and minimum requirements for employment and the process for attaining these to protect consumers both from poor service and inflated costs.

Educational and manpower programs generally focus on initial jobs and are rarely concerned with promotion and upgrading, career ladders, integrating work and education, and making it easier for an employed worker to obtain credentials. We have focused on helping the employed worker. We have identified some of the problems involved and have demonstrated how some of these can be solved. There are no distinctly new program elements in our design. What is new is a non-doctrinaire approach, using the results of many other programs, which resulted in a different set of elements and solutions for each of our models. Because of our problem-solving approach, we anticipate that the models will change from our original designs as time goes on and new needs arise. Actual practice may distort our theoretical constructs.

NCEY's continuing participation in monitoring the programs, evaluating them, and providing technical assistance, will help us to learn and to feed this learning--through experience--back into institutionalization and replication efforts. It is inevitable that a design which does not use a fixed model for all programs will have varying degrees of program success. On an overall evaluation, we believe that the project has achieved some solid successes and that our experiences have important lessons for those contemplating similar programs.

APPENDIX

Occupations Considered But Not Selected

--Case Workers in the New York City Department of Social Services. Budget cuts led to a freeze on hiring of case workers. New welfare laws, uncertain staff patterns under reorganization and a "hard line" toward welfare recipients further clouded possible collaboration. We obtained tentative agreement from the State Department of Social Services to waive the minimum requirement of a baccalaureate degree for employed Case Aides, but the City agency and the union were not enthusiastic.

--Ambulatory care team member with Bellevue Hospital Center, leading to positions as Nurse, Social Case Worker, Nutritionist, Dietician, or Community Health Educator. The medical board of Bellevue, decided to delay any new staffing patterns for at least a year.

--Hospital Case Worker with New York City Municipal Hospitals. Several directors of hospital departments of social service felt uncertain about effects of budget cuts on their departments which limited job lines and cut time available to develop a program. Since salaries and union representation for the Hospital Case Worker were the same as for Case Workers in the Department of Social Services, there was reluctance to take independent action.

--Public Health Sanitarian with New York City Health Department. Employed sanitarians and union officials were opposed to reducing educational requirements or changing the existing credential although these appear too high for the work performed by most workers in the occupation.

--Public Health Educator with New York City Health Department. Only 30 public health educators were employed by the city and there were just two vacancies.

--Physician's Assistant with New York City Health Department or a Veterans Administration Hospital. It appears unlikely that the necessary steps could be taken quickly enough to achieve success during the project's existence. Difficulties were encountered as a result of opposition of physicians, nurses, unions, and others.

--Social Worker Assistant with a voluntary hospital. The Social Service Department decided it could not commit enough staff time to make the project work.

--Laboratory Technologist with various health institutions. The automation of medical laboratories is accelerating at a rapid rate requiring less skill on the part of employees. There was also a lack of employer interest and some professional resistance.

--Blood Bank Technologist with Community Blood Council of Greater New York. There was not enough occupational data with respect to general demand, and not enough positions in the Community Blood Council to establish a program.

--Physical Therapist with New York State Department of Mental Hygiene. The influence of private practitioners on the professional association and academic institutions encourages higher educational requirements. The trend was too strong for us to achieve a reversal.

--Speech and Hearing Therapist with New York State Department of Mental Hugiene. This calls for highly specialized technical preparation requiring a master's degree and there was great resistance to setting up an intermediate level.

--Recreation Therapist with New York Department of Mental Hygiene. This is not a clearly defined occupation; it is hard to distinguish from other recreation workers.

--Inhalation Therapist. The number of persons employed by any one employer is very small and we were not able to organize a consortium.

--School Social Worker with New York City Board of Education. High credentials are required which we could not surmount, and there are relatively few openings.

--School Guidance Counselor with New York City Board of Education. Teachers consider this a desirable assignment and there is competition with many teachers on the eligibility list.

--School Libararian with New York City Board of Education. There was no shortage of librarians locally and little interest in establishing new credentials on the part of employers.

--Mental Health Worker with New York City Department of Mental Health and Mental Retardation Services. At the time this was a new occupation with little data, no credentials, and no employer interest.

--Rehabilitation Specialist with the New York State Department of Mental Hygiene. Only one hospital was interested, and it was a new occupation, ill-defined, and overlapping many existing specialty areas such as Occupational, Speech and Hearing, and Recreation Therapies.